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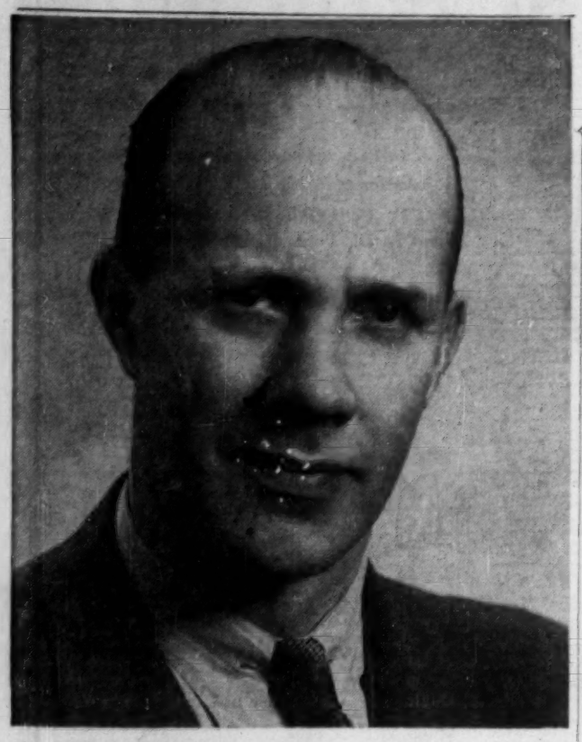
Heads MacMillan & Bloedel



Export expert Ralph M. Shaw, 51, takes over this week as president of one of the world's largest manufacturers and exporters of timber products, MacMillan & Bloedel Ltd. As top man in the Vancouver-based organization, he will direct the activities of a tree-to-timber-to-finished-product operation — biggest plywood maker in Canada — with annual sales close to $176 million. *(Personality sketch, p. 6.)*

NATION'S BUSINESS

They Aid Stability In The Market

Here is an important and fundamental change in our business system which is forcing a different attitude among those who regard as inevitable a repetition of the stock market crash of 1929 and ensuing depression.

These people base their thinking on the notion that, once the conditions for market expansion disappear, investors begin to panic and ultimately stampede out of the market, bringing on the very calamity whose effects they are trying to escape.

The institutional change that is altering this outlook is the rise of the large corporate investor—the mutual funds and the pension funds, for example. These bodies now have enormous influence on the stock market. The Financial Post report on the current activities of these investors revealed recently, such investors are not affected by short-term movements (except to take advanage of attractive buys). They don't run in and out of the market, and they don't panic. They are a stabilizing influence. In previous periods of market uncertainty, they have not had the enormous weight that they now possess.

The professional portfolio manager, investing for the long term, and with very large funds to administer, is a very much more common figure in financial circles than he was in 1929. Even the ordinary individual investor is a much more sophisticated stock buyer than 30 years ago and stock exchange regulations, particularly about margin, help protect him from getting into dangerously deep waters.

The market of today and the market of '29 are different creatures entirely, just as the industrial corporation of today is quite unlike the business firms Marx knew.

Institutional changes are hard to spot, because they occur gradually and because the institution itself is an abstraction. But institutional changes have vital effects on the way our economy works.

* * *

How to Attract New Industry

Does your town or city want to grow industrially? Progress of this kind seldom happens by accident. It usually has to be planned. It CAN be planned—by any community with the urge, the leadership, a reasonably favorable position on the map.

How company executives measure community attractions is set out in an article on pages 25, 27, 29, by Rex E. Grose, Manitoba's deputy minister of industry and commerce. Mr. Grose, successful in diversifying the economy of his own province, has made a study of what it takes to attract new plants to a town.

First necessity is a supply of power. Industrial executives, Mr. Grose has found, rate this advantage above every other. They want cheap power if possible, but they attach more importance to its being "adequate and dependable."

The next thing looked for is a good "industrial climate." To find how any town qualifies in this respect, ask these questions: Do the citizens want industry among them or do they prefer (a perfectly reasonable choice) the country atmosphere they may have now? Will their local council give new industry a fair break in its taxation and other policies? Has the town had peaceful labor-management relations in the past? Has it a reputation for electing sensible and honest local government?

Good living conditions and water supply come next on the list. It's a point worth noting that executives questioned by Mr. Grose put these considerations ahead of labor supply or wage rates.

On a score-sheet accompanying Mr. Grose's article any town can discover how it stacks up. But the point is that no town need be content with its industrial stature of today. By taking thought, and action, almost any community can make itself a better bet for a branch plant or a brand-new industry.

* * *

A Permanent Problem

A Dominion-Provincial conference on taxation has been called for November, Prime Minister Diefenbaker announces.

Whether or not the new national Government has fresh ideas about taxes, the party change at Ottawa could mean a new approach. Mr. Diefenbaker can look across the country and see political friends in power at various points. Ontario, Nova Scotia and New Brunswick have Conservative regimes. The people now in charge of B. C. were, for the most part, Conservative before they were Social Crediters. It is difficult to imagine Diefenbaker's relationship with Duplessis being worse than previous Ottawa-Quebec affairs and they may be a whole lot better.

Dominion-Provincial relations have sometimes been far from cordial, even acrimonious, in recent years. It will be interesting to see whether a more friendly and co-operative spirit can now prevail. We think it might.

One thing that has to be recognized, however, is that the division of tax powers and revenues in a federated country is likely to be a permanent problem. It's impossible to work out an ideal formula that will last forever.

A good general principle is that every elected spending authority should collect the revenue it needs to meet its expenses. Canada is moving steadily away from this sound arrangement as provinces more and more rely on the Dominion and municipalities more and more rely on the provinces. If this trend could be reversed, that would be to the general advantage.

On the other hand, it isn't practical politics that the central authority should yield any part of its constitutional power to raise taxes, direct or indirect, in any way it finds necessary and sees fit.

This being so, the best that can be looked for is a compromise between two equally valid principles and a long series of temporary accommodations between two taxing authorities.

FIRST IN 12 MONTHS

New Housing Spurt Can Spell Revival

By CLIFFORD FOWKE

An upturn in new home building activity for the first time in 12 months, and the promise of more to come.

That's the 1957 highlight indicated this week for Canada's $6 billion construction industry plus the wide range of manufacturers who have been hit by the levelling-off in the $1.6 billion residential segment. (Details, p. 37.)

Here are the latest estimates which will set economists reviewing inventory needs in hundreds of plants producing scores of items from plywood to refrigerators.

- **Preliminary figures for new housing** unit starts in August were only 3% behind August, 1956, are expected to be 3% ahead when all returns come in.
- **First impact of the new surge** has been felt in Montreal and Toronto, is expected to spread to other major centres this month and in October and November.
- **Latest new source of mortgage funds**—$150 million recently made available by Ottawa for NHA homes—has still to open up fully. This is a near-guarantee that the surge will continue through the fall.
- **Meanwhile, loan applications for the new source** of funds has also spurted and in the first week totaled more than 3,000. (Details, p. 17.)
- **Another promise of increasing activity** lies in the latest residential contract award figures compiled by **Hugh C. MacLean** Building Reports. For the first time in 15 months, these show a 7.4% increase in value over the same month a year ago.

But behind the new surge is a coast-to-coast reorganization of ideas, planning and other factors to revive the flagging sales end of the industry.

Builders, suppliers and **Central Mortgage & Housing Corp.** are combining to meet the challenge of a 73.9% increase since last year in the number of new completed houses standing unsold.

At the end of August last, in centres of 5,000 population and more, 2,156 new houses had been standing unsold for a month or more as against 1,240 at the end of August, 1956.

And here's what the new approach will mean:

- **Average home buyers** must be content with smaller houses but they will contain the same number of rooms.
- **The houses will be better** designed but have an increasing content of prefabricated, plastic and off-site assembly work.
- **They will carry more extras** and the price will be slightly less despite rising costs.
- **Metropolitan workers will have to travel** farther for their new homes because high land prices are still the biggest cost factor in house building. The alternative is a postage stamp lot.

Irving Oil Plans Hefty Entry in Refinery Field

By W. L. DACK

A second multi-million dollar oil refinery for the Maritimes is now in the final planning stages.

Irving Oil Co. Saint John, N.B., in association with a large U.S. oil company, will construct a large-volume refinery on tidewater at Saint John, FP understands.

Rumored to be involved are **Standard Oil** of New Jersey and **Socony-Mobil Oil** through a Middle East subsidiary.

Details of the deal are expected to be made public shortly.

Irving Oil Co. is a long-established oil marketing firm with some 1,500 retail outlets throughout the Maritime provinces and eastern Quebec.

Headed by millionaire Maritime industrialist K. C. Irving, the firm has steadily expanded its markets over the past few years.

At least two well-known Canadian refining firms are believed to have unsuccessfully talked purchase terms with Mr. Irving in the last few years.

Irving has been considering the big and costly jump into the refining field for over a year now.

Although marketing figures have not been publicly disclosed, an authoritative source places gallonage of petroleum products at over 110 million gal. annually.

The only refinery in the Maritimes today is the recently expanded and modernized **Imperial Oil** refinery near Halifax.

This refinery has a capacity of 42,000 b/d, and a recent complete overhaul job cost around $30 million.

The new Saint John refinery being planned by Irving Oil and its U.S. associate will have a capacity roughly equal to that of Imperial Oil, FP is informed.

Mr. Irving—now 58—entered the oil marketing business at the age of 25 with a single gasoline tank and not enough money to pay for it.

His diversified holdings include lumber and pulp mills, public transit systems.

He is said to have a sizeable interest in several Maritime daily newspapers.

His oil company alone controls some two dozen subsidiary firms which sell cars, hardware, auto accessories and real estate, operate ocean-going tankers and own a hotel.

Business Book

The new FP Business Year Book, just off the press, provides fresh information for sales managers, advertising executives and business planners in widely varied fields across Canada.

The 160-page book presents marketing data in easy-to-use form. It incorporates brand new facts—statistics on the metropolitan areas, covers in detail the 1956 census on population, age groups, households and also the 1956 census on agriculture.

It's a ready reference on employment, wages, prices, trade and other facts that help measure today's sales potentials.

A comprehensive index makes it easy to find almost any fact a businessman needs to know about Canada.

Available at $3 postpaid, from FP, 481 University Ave., Toronto 2.

Inside

Science's Deadly 'Ifs'

We may worry about man-made destruction—but one infinitesimal change in nature's enormity, such as a meteorite or a shift in the earth's temperature pattern, could shatter our civilization. A sobering and far-from-fantastic report ..... p. 26

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Stop Those Business Blues

No need to moan and groan about business, says Ford of Canada's Rhys Sale ..... p. 32

U.S. Pressure on Our Mines

Here's the upcoming U. S. campaign against our mineral exports, and a handy indicator of the importance of this U. S. trade ..... p. 45

Pulp and Paper Stocks

Here's the latest guide to Canada's pulp and paper industry for onlooker and shareholder ..... pp. 49-91
A look at the statistical background of pulp and paper stocks ..... p. 5

Three Questions Point Up Clues to Winter Activity

OTTAWA (Staff) — How will business go through the coming winter?

Important new clues were provided this week by the DBS National Accounts for the first half year. They point up three crucial questions:

1. Will new construction be rushed through the last quarter of the year? If not, housing is the only capital investment likely to exceed the intentions announced in the mid-year survey.

On the first half year, non-residential construction was 10% below the plans reported at mid-year, and installation of new machinery and equipment was 5% behind. Total capital spending was running only 6% ahead of the 1956 total, whereas the mid-year survey of intentions called for a 12% increase.

2. Will the Canadian public start spending its increased income more freely? In the first half year Canadians spent about 6% more on consumer goods and services than in the first half of 1956. But this means that the average family was only getting about the same amount of goods and services as a year earlier. Half the dollar increase is due to higher prices, and the other half to growth in population.

Per capita consumption in real terms was about level in the two January-June periods. But in the second quarter of this year it was lower than in the first: Dollar expenditure was about the same, but prices were about 1% higher over-all.

Instead of spending, Canadians were saving more.

3. Will a slackening of imports, and a lower premium on the Canadian dollar, bring better demand to Canadian manufacturers? Imports were beginning to slack off at mid-year, and purchases of new machinery and equipment (heavily concentrated in U.S.) showed some decline after two years of steady rise.

Canadian manufacturers were accumulating inventories at a slower rate in the second quarter; but most of the accumulation seemed to be of finished products rather than raw materials.

Total output of the Canadian economy, April-June, was, as expected, about level with the first three months. That's in value terms, leaving out the farm component: totals, ex-farm, were: first quarter: $29,420 million, second quarter: $29,492 million, including farm GNP came to $30,712 million in first quarter, and $30,728 million in the second.

The average price of "final products" was about 1% higher in the second quarter than the first; so volume of output must have been down a little. That, of course, corresponds with the sluggish consumer spending and the lagging investment program (details, p. 10).

Are Secret Seaway Deals Curbing Canadian Rights?

Canada may have made secret Seaway deals with the U. S. which curtail its "freedom to develop independent policy," claims Toronto research expert George F. Bain.

Bain blasts what he terms the "entrenched reticence" of the St. Lawrence Seaway Authority. (For details, p. 18.)

He fears particularly:

- **That Canada is losing the right** to set up, if desired, a toll structure independent of the U. S.
- **That lack of authority in Canadian policy** toward U. S. shipping subsidies will put Canadian vessels at a competitive disadvantage in using the Seaway.
- **That secrecy about toll-setting** methods may serve to mask irrevocable and undesirable policy decisions.

Bain, president of Canadian Economic Research Associates, has spent 13 months in an intensive study of possible Seaway impact on lake shipping.

He set forth his views—along with a list of searching questions—in a letter this week to Transport Minister George Hees.

He said the limited scope of the public hearing on the Seaway, opening this week in Ottawa, "gives little promise that shippers or the public will get . . . answers" from the Seaway Authority.

THE SIGNS AND PORTENTS

DON'T BE SURPRISED if Britain's atomic energy researchers soon announce a new breakthrough in efforts to control the H-bomb reaction for generating power. There's still a long way to go. But since the reaction is based solely on heavy forms of hydrogen, it could eventually mean atomic energy without uranium.

* * *

QUEEN'S UNIVERSITY is planning a major step, following Ottawa and McMaster, for training nuclear engineers. Course may start this time next year. Next will come a "subcritical" reactor assembly.

* * *

EXPECT INCREASING Russian oceanographic activity along Canada's eastern and western seaboards. The anti-magnetic survey vessel Zarya, which has just left Halifax, is one of a large fleet of finely equipped Soviet research ships now operating in all the oceans.

* * *

BRAINWASHING may soon be a literal description. The washing will be done with chemicals. Current experiments suggest that injecting different chemicals into the brain can change habits, reactions, even decisions.

* * *

NEXT MOVE in the business battle of the soap firms can possibly be predicted. They'll be marketing soap powder like tea bags, each bag holding the right amount for a washing machine. It's made possible by a new packaging material that dissolves in water.

* * *

NEW SAFETY measure for aircraft, now being flight-tested in the U. K., involves filling the air space in fuel tanks with nitrogen to remove the hazard of fire.

MONTREAL CAME close to losing International Air Transport Association. A secret vote of airlines at IATA's annual general meeting in Madrid brought 30 votes in favor of moving headquarters to Geneva, 29 for staying in Montreal and six abstainers. Decision: Stay put.

* * *

"A GRADUAL CLIMB from the current economic plateau over the next few months," is the latest prediction of Rhys M. Sale, president, Ford of Canada.

* * *

MILK BOTTLE makers must seek new outlets if the method of supplying northern Canadian military bases finds civilian use. When 2,500 gal. of milk arrived recently in Fort Churchill it was in the form of 10,000 quart-size frozen blocks.

A YEAR AGO you could only buy 25 pieces of music recorded on stereophonic tape (the method that uses two microphones for recording, two speakers for playback). Now you can buy more than 250. The number is still growing.

* * *

LIGNIN IS likely to find a commercial use in tire manufacture. It's the substance that holds fibres together in wood. Tests show it can lengthen the tread life of synthetic tires. For other lignin uses see p. 75.

* * *

MOTORISTS take heart. The police radar trap, so often misused, may one day be worthless. Means of salvation lies in a new material that a U. K. firm has developed. When coated on metal it makes radar signals die out.

Drop in Output Worries Experts

Productivity Per Man Is Showing Decline, An Inflationary Factor, As More Work In Industry — Is Business Payroll Too High?

By MICHAEL BARKWAY

OTTAWA (Staff)—There are some big questions worrying the experts here—as they must be causing concern to business and industry.

The questions:

- **What's happening to productivity**—the output per man?
- **Is the individual doing as much work?**
- **Are employers trying to keep in jobs** more men than are justified by the volume of business they are doing?

The questions are brought out into the open by the second quarter National Accounts, just released. (Details, p.10).

The fact is that jobs in non-farm business are still going up when volume of physical output is declining.

You can't adjust these figures for seasonal variations, so you must compare the same quarters of different years.

Here's the record of our decline in productivity:

(Volume of output per man covering whole economy except agriculture)
Percent change from same quarter last year.)

Third quarter, 1956:	+3%
Fourth quarter, 1956:	+2%
First quarter, 1957:	no change
Second quarter, 1957:	—3%

On one sector you can get seasonally adjusted evidence: that's manufacturing.

And it shows that, in the second quarter of this year, volume of output from manufacturing industry was 3% lower than in the first quarter.

But the number of employees in manufacturing declined only 1% (seasonally adjusted).

Only a drop in productivity—output per man—can account for the other 2% decline from the first to the second quarter.

Tennessee Gas Sells Block Of Its Trans-Canada Stock

Tennessee Gas Transmission Co., biggest gas transmission firm in the world and one of the major partners in the Trans-Canada gas pipeline project, has sold a big block of its share holdings in **Trans-Canada Pipe Lines**, FP understands.

In a private deal involving 100,000 shares of Trans-Canada stock, 85,000 shares have been purchased by a Canadian oil company.

(Of the remaining 15,000 shares, 5,000 have gone to a Toronto investment firm and 10,000 to U. S. interests.)

The Trans-Canada shareholder list in the transfer office of **Montreal Trust** discloses a 90,000 share transfer out of Tennessee's name on July 16. The stock went first to **Royal Bank.**

Tennessee, with 327,790 shares, originally held a 17% ownership in Trans-Canada. Other partners holding same participation were **Hudson's Bay Oil & Gas** and **British American Oil Co.**

Canadian Delhi Oil, with 497,040 for a 25.7% participation, was the biggest shareholder.

The proportionate interests held by the major shareholders plus the public offering in this country early this year exceeded the 51% Canadian participation promised the federal government by the company and underwriters.

But with the intense trading activity in Trans-Canada over the past few months, it is difficult now to say what percentage of stock is held in this country and how much in U. S.

Boost Our Participation

Certainly the Tennessee sale of stock will boost Canadian participation appreciably.

If Tennessee plans sale of a further block of its Trans-Canada holdings in this country—recent report is that a further 100,000 shares are on the sales counter with the same Canadian oil company the likely purchaser—this might very well assure majority ownership in Canada for the time being at least.

The Conservative government, elected a few weeks before the Tennessee stock sale, is virtually committed to some form of investigation into certain aspects of the Trans-Canada undertaking.

One of the points often raised by Conservative opposition members in last year's bitter closure debate was the large U. S. ownership in this essentially Canadian project.

There's Profit and Loss Too In Our Dollar's Every Move

By DALTON ROBERTSON

Canadian exporters and importers are keeping close tabs on U.S.-Canadian exchange rates.

There's good reason: Even slight variations in exchange can nip or boost profits.

- **Exporters, most of whom get paid in U. S. dollars**, have watched with increasing satisfaction as the U. S. dollar gained strength over the past month.

It hit a 1957 low point on August 21 when $1 U. S. was worth only 94.344c Canadian. Now it's up to 96.313.

It appears fractional — but it means that for every $1,000 worth of goods sold in the U. S. the return is $19.69 bigger.

Among the most keenly interested are Canadian newsprint makers who attribute a good part of their profits-turned-into-losses to the fact that in 1956-57 it took more U. S. cents to buy a Canadian dollar than at any point in the past few decades (see p. 49).

- **Importers aren't as pleased** — to say the least. They pay for their purchases in Canadian dollars and while on Aug. 21 their dollar was worth 105.995c U.S., it's now worth only 103.828c U.S.

Their $1,000 purchase in the U. S. now costs them $21.67 more than a month ago — but they are still better off than a year ago:

	$1 Canadian in U.S. cents	$1 U.S. in Can. cents
Mid-September 1956	102.348	97.706
Aug. 21, 1957 high point	103.995	94.344
Three weeks ago (ave.)	103.139	95.112
Two weeks ago (ave.)	105.091	95.156
One week ago (ave.)	104.391	95.794
Beginning this week	103.828	96.313

Trend over the past month has been a slow decline in the premium on the Canadian dollar.

Speculation is mounting that it will continue and the next six months will see a slow return closer to parity.

Stock Market Highlights

Industrials

Canadian **industrial** stocks settle into narrow range at slightly lower levels after a short-lived recovery attempt at some earlier steep losses. For details on some of the stocks that moved see p. 4.

Mines and Oils

Mining and **oil** stocks also irregular and tend to follow general market pattern of mild decline. For details on some of the stocks that moved see p. 46.

A handful of **western oil** and **gas** stocks lend higher and hold bulk of gains. Emphasis appears largely centred on natural gas issues.

Golds also continue steady on the **mining** board while **coppers** swing higher and then lower in line with favorable and unfavorable news on markets for the metal.

Nickel issues also weak and **uraniums** move narrowly lower.

Price changes generally small with some exceptions among major base metal producers which tend to fairly wide swings as they trade at or near new low levels. Trading volume sags in one session to lowest level in about three years.

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WEST INDIES

On-the-spot service

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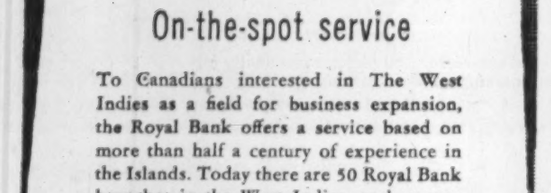

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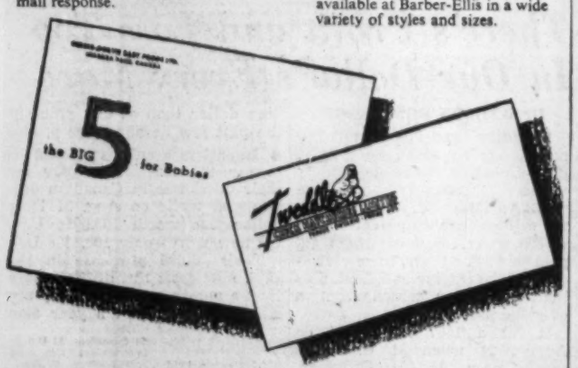

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Trend of Business

Iron output up, steel production down. Output of pig iron continues to rise, hitting 338,726 tons in August (+6.9%) bringing year-to-date total to 2.6 million tons (+10.1%). But steel production dropped from a year earlier for fourth month in a row: 426,151 tons (—4%) with first seven month total 3.5 million tons (+0.8%).

Department store sales chalk up steady gains. In July they advanced 6.6% over year-earlier to $83.9 million bringing first seven month total to $644.3 million, up 4.1%. This continued into August when, during the last week of the month, sales gain was 4.6%. Stocks at end of June came to $286.3 million, up 7.3%.

Trends in factory-to-customer shipments: Total value in July was $1,815 million, fractionally lower than a month earlier. Up were food and beverages, iron and steel, non-metallic minerals, petroleum and coal products. Down: tobacco, rubber, textiles, wood products, transportation equipment, electrical supplies. Total shipments in first seven months up 3% over same period in '56.

Total inventory held by manufacturers steady. During July, inventories were valued at $4,824 million, just about the same as month before. Biggest increases were in petroleum and coal products; largest decreases in tobacco and rubber products, transportation equipment. At month end, total inventories were 9.8% higher than a year earlier.

New orders in July topped $1,805 million, up 3% from June and almost 4% higher than year earlier. With shipments during the month slightly higher than new orders, value of unfilled orders at the beginning of August down for the sixth successive month. Total: $2,917 million, fractionally lower than a month before, fractionally higher than a year earlier.

Dividend payments steady despite current squeeze on profits. Payments this month likely to be relatively unchanged from those last month and 6.1% higher than a year ago. Nesbitt Thomson index (1935-39=100) which estimates general trend in payments from industrial, mining, banking and utility organizations is expected to reach 326.7 vs. 307.8 a year ago.

Reflecting the still-strong pace of business, cheque cashings continue well above year-earlier totals, July total: $19,160 million, up 7.3% from mid-summer '56. This pushed year-to-date total to $123,146 million, 8.8% higher than in the comparable months last year.

Railway car loadings continue to decline. Number of cars loaded in August 12% lower than a year ago and down 17% in the last 10 days of the month. January-August total 8.1% below year-earlier with biggest declines in grain and grain products, coal, non-ferrous ores, crude petroleum, sand, lumber and commodities in less than carload lots. Only increases: "other" mine products and newsprint.

Sizing up the market. New breakdown of 1956 population by age groups shows figures for municipal and census divisions in each province. Released this week by DBS.

Canada's '57 apple crop likely to be 5% bigger due to bumper B. C. harvest. Accounting for 45% of the total 13 million bu. crop, B. C. will have a 43% year-to-year increase in production. This more than offsets small declines in all other provinces except New Brunswick.

How the economy's doing. Latest statistics adjusted to exclude the ups and downs of seasonal factors show that in June:

—**Industrial production** was 1% lower than in May; 1.1% below year earlier with gains in mining more than offset by lower manufacturing output.

—**Employment** in the second quarter up 1% over first quarter, up 5.2% over year before while **job-seekers** in June 5% more than month before and 48% more than year earlier.

—**Retail trade** 1.5% better than month before, but only 0.8% better than year earlier.

Major Weekly Indicators

	Latest Week	Week Ago	Month Ago	Year Ago
Department stores sales, % from year earlier	+4.6	+4.8	+8.1	+9.1
Carloading totals (cars)	121,290*	86,264	132,433*	145,886*
Eastern Canada (cars)	82,357*	58,392	87,335*	91,426*
Western Canada (cars)	38,933*	27,872	45,098*	54,460*
Iron and steel mfg. (cars)	2,293*	1,440	2,182*	2,652*
Ores, concentrates (cars)	17,772*	12,260	17,621*	20,308*
Base metals (cars)	764*	598	635*	1,141*
Lumber, timber, plywood (cars)	5,807*	3,866	6,600*	7,506*
Cement (cars)	1,711*	1,165	2,336*	2,026*
Passenger car production (no.)	1,698*	2,072	7,269	713
Truck production (no.)	1,012	646	1,391	1,598
Bus, fail, 4-week moving av. (no.)	—	25.0	28.0	22.3
Chartered Banks				
Personal Savings ($ millions)	6,299	6,244	6,253	5,972
Loans outstanding ($ millions)	5,494	5,498	5,560	5,315
NHA mtge. holdings ($ millions)	518	516	507	432
Bank of Canada holdings of				
Securities ($ millions)	2,499	2,479	2,484	2,384
Short-term govern. ($ millions)	1,279	1,254	1,256	1,018
Long-term govern. ($ millions)	1,168	1,169	1,171	1,338
Other securities ($ millions)	17	21	24	12
Canadian dollars (U.S. cents, av.)	104.281	105.090	105.569	102.347
T.S.E. industrial index	434.81	433.77	448.46	477.43
Yield, 114 stocks	5.27	5.27	5.24	4.62
Bank Clearings:				
Montreal ($ millions)	726	729	672	645
Toronto ($ millions)	918	949	870	882

* 10-day end of month period.

Facts by the Month

WHAT WE PRODUCE—	Latest Month Available	One Month Previous	Two Months Previous	One Year Previous
In all industries (Index)	297.0	288.7	285.3	298.7
In factories (Index)	296.0	287.0	285.1	303.3
Total nondurable goods (Index)	262.8	251.2	247.4	260.1
Food & bev. (Index)	278.6	246.6	226.8	272.8
Textiles (Index)	184.7	189.0	200.1	191.9
Clothing (Index)	140.7	150.4	158.1	149.1
Chemical products (Index)	320.0	323.0	316.9	316.6
Total durable goods (Index)	348.6	343.0	344.1	370.8
Iron & steel products (Index)	334.6	330.7	327.9	335.8
Primary iron & steel (Index)	407.7	403.0	428.3	423.6
From mines (Index)	307.4	293.0	273.8	279.5
Metals (Index)	166.6	161.2	143.3	185.6
Nonferrous smelting, refining (Index)	234.9	261.0	284.2	285.4
Gold (Index)	103.7	104.7	110.2	110.3
—From farms				
•Cattle delivered (000)	153	183	139	143
•Hogs graded (000)	318	431	382	375
•Flour (Index)	120.0	119.3	124.1	137.6
—From sea				
East Coast catch ($000)	7,503	7,150	2,619	8,588
West Coast catch ($000)	2,453	1,863	593	3,243
—From forests				
Newsprint (000 tons)	549	532	573	532
Pulp (000 tons)	850	862	916	856
—In powerhouses				
Electricity (million kwh guaranteed)	6,798	7,618	7,524	6,723
WHAT WE SELL—				
Retail sales ($ millions)	1,252	1,294	1,227	1,299
•Dept. store sales ($ millions)	83.9	97.2	108.6	78.8
Wholesale sales ($ millions)	680	732	660	713
•Mfrs. outstg. orders ($ millions)	2,917	2,927	2,968	2,909
Pass. car sales (units)	37,833	44,780	46,045	49,084
WHAT'S ON HAND—				
•Mfrs. inventories ($ millions)	4,824	4,830	4,813	4,392
•Dept. store stock sale ratio	3.7	2.8	2.7	2.6
SPENDING, SAVING POWER—				
Labor income ($ millions)	1,325	1,270	1,218	1,215
•Dividend payments (Index) (annual rate)	326.7	326.2	327.8	307.8
JOBS—				
Persons with jobs (000)	5,834	5,687	5,442	5,647
Jobless seeking work (000))	162	194	306	117
Do. (% of labor force)	2.7	3.3	5.3	2.0
CONSTRUCTION—				
Contract awards ($ millions)	348	348	371	386
FOREIGN TRADE—				
Exports ($ millions)	449	394	445	430
Imports ($ millions)	483	455	387	485
MONEY—				
•Money supply ($ millions)*	11,174	11,181	11,086	10,972
•Cheques cashed ($ millions)	19,160	17,440	18,339	17,852
Life insurance sales ($ millions)	385	378	375	284
•Notice deposits ($ millions)	6,686	6,630	6,611	6,395
•Current public loans ($ millions)	5,370	5,499	5,482	5,299
PRICES—				
•Consumer price (Index)	122.6	121.9	121.6	119.1

Index based: production wholesale sales 1935-39=100; consumer price index 1949=100; manufacturers' inventories outstanding orders Dec., 1932=100.
*Total deposits, less Govt. of Canada deposits less float, plus notes in circulation outside the banking system.

STRATEGIC MATERIALS—Production and Supply—

	Latest Month	Month yr. ago	Yr. to date	% chge. yr. to date
•Steel ingots and castings (000 tons)	427.8	441.6	3,109.3	+1.7
Primary copper (000 tons)	26.3	29.1	166.2	—5.0
Nickel (000tons)	15.4	14.5	96.4	+7.5
•Lumber exports (millions fbm.)	327.8	371.6	1,679.0	—13.5
•Lumber (millions fbm.)	738.0	780.8	3,521.0	—10.0

•New item this week.

Date of issue for your file. The Financial Post, Sept. 21, 1957.

Look For It Here

September 20, 1957

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BAILEY SELBURN OIL & GAS LTD. during August converted 605 5% redeemable preferred shares into 1,210 Class "A" shares, reducing number of preferred outstanding to 171,003 and bringing number of Class "A" shares outstanding to 2,862,872.

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On September 21st, James Richardson & Sons, Limited celebrates the Hundredth Anniversary of its founding. On this occasion we are mindful of the confidence placed in us by many people whose patronage has sustained our growth. To them we extend our thanks.

We are fortunate that our first century in business has paralleled a period of unprecedented development in Canada. We look back on these years with gratitude but we prefer to look forward, with all Canadians, to the challenge and the promise still ahead.

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Canada: Name or Nation in U.S. View?

It took Suez, the pipeline and ballet to do it, but they're talking about Canada in the U. S. A special report . . .

By C. KNOWLTON NASH

WASHINGTON, D.C.—Americans are more aware of Canada today than ever before in history.

The U. S. view of Canada is now something like a man who was almost blind a year ago and today is only half blind.

Although far from adequate, Americans at least see more of Canada now than they ever have.

In Washington, D.C., Messrs. Benson and Dulles, and sometimes even Sherman Adams, once in a while rock back in their big leather swivel chairs and wonder what Ottawa's reaction will be to this or that U. S. scheme.

Toronto, Ottawa, Montreal, Winnipeg and Vancouver datelines are turning up more often in U. S. newspapers.

More feature articles about Canada are spilling out of U. S. national magazines.

And Canada has been promoted to a frequent conversation topic along the cocktail party circuit in Westchester, Chevy Chase and Nob Hill.

This increased interest in Canada has sprung up over the past year. The four top reasons for it are these:

- **Canada's support of the U. S. in the Suez affair.**
- **The Norman case.**
- **The election.**
- **Canada's criticism of U. S. trade policies.**

All but the first point have been noted to involve at least a degree of some subtle or otherwise anti-U. S. feeling, which Canadians, however, prefer to think of as pro-Canadianism.

Hear Us Now

It is a clear fact that the Diefenbaker Government's statements on our unhappiness with Washington on trade and surplus disposal are being listened to more carefully than the latter-day complaints of the St. Laurent government.

For one thing, Diefenbaker makes much more public noise than St. Laurent ever did and in Washington you have to shout to get noticed.

The U. S. press, radio and television were more concerned about the Norman case and the resultant strain on Canadian-U. S. relations than about any previous development between our two countries.

The Canadian election was reported more thoroughly in the U. S. press and given more editorial page attention than anything that has happened before in Canada.

Now, the big guns of the U. S. press, radio and television are publicizing the forthcoming Canada-U. S. Cabinet-level meeting in Washington at which Canada will complain about our imbalance of trade with Uncle Sam and Washington's give-away of farm surpluses in the world market.

It is comforting for Canadians to know that the U. S. upper crust, the cabinet secretaries and the top-level civil servants can see our muscle-flexing and are aware of our growing nationalism.

Awareness of our wants, however, is a long way from providing our wants.

At present, the U. S. administration has no intention of giving up the farm surplus disposals or lowering tariffs.

However, Washington does now agree that some of its policies do hurt us. Two years ago such an admission was not possible.

Any criticism was viewed simply as ignorance of Uncle Sam's benevolent nature.

But now, as Secretary Benson told a Canadian visitor recently: "Sure, our disposals hurt. But then what can we do? We've got to get rid of the stuff."

Friends in Press

Canada always has had some good press friends in the U. S. like the New York Times or the Washington Post and Times Herald.

On almost any complaint Ottawa has with Washington, the Times and the Post will be editorially on Canada's side.

But when you get beyond the Mississippi and well below the Mason-Dixon Line, it's a little different.

It's not matters of state, trade imbalances and investment problems that are talked about in Lizard Lick, North Carolina.

It's things like televised National Hockey League games on Saturday afternoons and hearing about Canada's national sport.

It's the National Ballet of Canada on a U. S. tour—even in Lizard Lick some people know about ballet.

It's an exhibition football game in San Francisco between the Edmonton Eskimos and the B. C. Lions.

On the unfavorable side, the 73 residents of a mining community like Silver City, Nevada get awfully mad at our lead and zinc exports to the U. S., and our tungsten or copper exports.

They mistakenly see breadlines and closed mines because of us.

New England fishermen are mad at us because of the fish fillets we ship in.

U. S. newspapers, making more money than ever before, are angry every time Canadian newsprint goes up in price.

Montana and North Dakota grain growers are mad about our meagre grain exports to the U. S. and the Pacific Northwest fruit growers think they get unfairly treated in B. C.

But good or bad, there is more feeling being expressed about Canada today than ever before, from Lizard Lick to Madison Ave. and from Silver City to the Pentagon.

Pipeline & Ballet

Aside from the four major reasons for Canada being in the minds of Americans, there are a host of smaller or regional reasons, such as:

- The Trans-Canada pipeline.
- The St. Lawrence Seaway.
- North American defense — the Dew Line, etc.
- Oil imports.
- "Mike" Pearson's popularity.
- Canada's dynamic, expanding economy.
- Culture in Canada—Stratford, the Ballet.
- Canada in the U.N.
- U. S. soldiers stationed in Canada.
- Occasional televising of Canadian football games.

The emergence of Canada has even penetrated the holy halls of Capitol Hill in Washington.

Congressmen and senators delight in talking to Canadian reporters about that 3,000 mile, undefended border.

But other than contented, after-dinner-speaker type of statements, congressmen ignore Canada for the most part and even are unaware of most of their own actions which hurt Canada.

A chink of light broke through this stifling wall of friendship, however, at the last session of Congress.

Two members of the House foreign affairs committee — Rep. Brooks Hays and Rep. Frank Coffin—announced they were going to Canada this fall to study Canadian affairs.

"Canada is too important not to get continuing attention," Rep. Hays told FP.

Taking a congressional junket to Canada is unheard of in Washington when the Montmarte, the Coliseum, the Madrid bull ring and Trafalgar Square beckon the solons for foreign affairs study.

Equally significant at this session of Congress was the warm tribute paid to Canadian soldiers by Senator John Sherman Cooper on the 15th anniversary of Dieppe.

Listen to CBC

The **Canadian Broadcasting Corp.** also is winning friends for Canada in U. S. cities as far south as Washington.

The Washington Post and Times Herald has said:

"The lofty and pompous manner of many U. S. news broadcasters and the vulgar and raucous commercials in their news programs have led many U. S. radio listeners to the CBC news programs . . . a news program that is in the best of taste, well delivered and broad in coverage . . . even bad news sounds better on the CBC."

Toronto's form of city-suburban government has attracted attention in scores of U. S. cities.

The U. S. cities also are learning how important Canada is to them in dollars and cents.

Several surveys have been made in U. S. in the last couple of years revealing what, to Americans, are such startling facts as:

- **Brooklyn sells more** to Canada than Argentina does.
- **Louisville sells more to Canada** than New Zealand does.
- **Chicago sells almost as much** to Canada as West Germany does.
- **Seattle sells almost** as much to Canada as Norway does.

In San Francisco a letter writer got in trouble when he wrote to the Examiner that Canada should be joined to the U. S. and that Britain be compensated by the dropping of war debts.

A barrage of protesting letters flooded the editor, one of which suggested it was more likely that Canada "will eventually absorb the U. S."

Tourist Dollars

In Florida, Canadian winter holidayers are as numerous as coconuts and pour millions of dollars into cash registers in hotels, drug stores, groceries, restaurants and bars.

Undoubtedly more education is put across by a Torontonian, Vancouverite or Montrealer talking about Canada to his Miami barber than all the speeches, statements and notes that tumble out of Ottawa.

All this does not mean Americans are boning up on Canadian history, culture and economics.

Most of them still think we pay taxes to the Queen; they don't know who our prime minister is; and they're dumbfounded when told the Canadian dollar is worth more than the U. S. dollar.

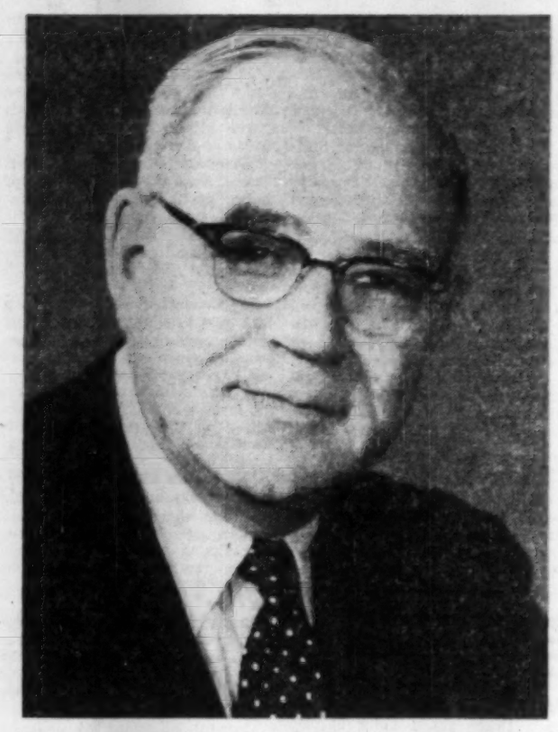
The favorite U. S. expression (which they consider their greatest compliment) still is to speak of Canadians by saying: "Why, you're just like us."

Despite all this, however, Americans ARE more aware of Canada today than ever before.

In Washington it's the trade imbalance and surpluses that brings awareness; in New York, the dollar difference; in Chicago the Seaway; in Lizard Lick, the televised hockey games; and in Miami, the Canadian tourists.

With awareness the first step and understanding the next, we may at least be on the road to action in helping to solve our biggest problem, that of trying to live with a giant as our neighbor and not be stepped on.

And we can hope that Washington may also get interested in our hockey, and Lizard Lick in our trade imbalance.



"BOB" FARQUHARSON
Ex-Newspaperman in the U. S. Firing Line

Meet Canada's 'Press Agent' In the Washington Hot-Spot

WASHINGTON — Canada's man in the advance post of the firing line in Washington is Robert A. Farquharson, counsellor at the Canadian Embassy.

"Bob" Farquharson, longtime newspaperman, keeps a steady stream of material going to influential U. S. newspapers, columnists and commentators.

Through his efforts, editorials pop up all over the country, usually praising some Canadian stand.

When Prime Minister Diefenbaker spoke at Dartmouth College recently, key newsmen around Washington and across the country found the full Diefenbaker text on their desks Monday morning.

In Washington alone, this resulted in praiseworthy editorials in the Washington Star and the Washington Post and Times Herald.

Farquharson is on a first name basis with most of the influential U. S. correspondents in Washington.

He sees his first job as one of providing material to the U. S. newsmen.

His second job is looking after Canadian correspondents in Washington.

Farquharson remains in spirit a newsman, not a diplomat, and hence knows how to provide ammunition for the U. S. press, radio and television to fire.

Leaving active newspaper work in 1952 he became director of information for NATO in Paris, and came to Washington in 1954.

B. C. Power Commission's $30 Million Bonds Yield 5¼%

An offering of $30 million British Columbia Power Commission bonds is being made in four parts by five groups of investment dealers.

It consists of 3% and 5% bonds due Sept. 15 in 1960, 1964, 1982 and 1992, with purchasers having the choice of any of the four maturities. All bonds are offered at prices to yield 5.25%.

The 1960, 1982 and 1992 maturities will be non-callable, while the 1964 bonds will be callable in the last two years before they mature. The two long-term issues will carry a full sinking fund.

The Commission provides electricity to more than 70,000 customers and a population of some 325,000. In the year ended March 31, 1957, 1,068 million kwh was generated and purchased.

The Commission also supplies power to three large pulp and paper mills on Vancouver Island, and sells under contract to **British Columbia Electric Co.** a substantial portion of the latter's electric requirements on the Island to serve Victoria and surrounding communities.

At March 31, Commission owned and operated 284,435 kw of rated generated capacity. Of this, 85% is in 17 hydro-electric plants and the balance in various small diesel plants.

Capital expenditures in the six years ended last March 31 totaled $96.5 million. Construction program now under way will require an estimated total of $40 million by March 31, 1959, to complete work now authorized.

Heading the five groups of investment dealers are **A. E. Ames & Co., Mills, Spence & Co., Royal Securities Corp., Equitable Securities Canada Ltd.** and **Gairdner & Co.**

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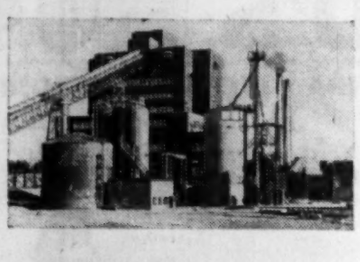

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(Non-callable)

Maturing October 1, 1977

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These Debentures are direct obligations of the Province of Newfoundland. A sinking fund will retire about 60% of the principal amount by maturity.

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Guaranteed by the Province of British Columbia

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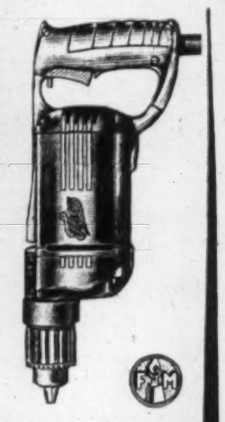

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Bell May Double Capitalization

MONTREAL (Staff)—**Bell Telephone of Canada** will apply to the Canadian Parliament for permission to increase authorized capital stock from $500 million to $1 billion, divided into shares of $25 par each.

The increase is being sought to keep company's capitalization abreast of its expansion. By the end of 1957, company notes, there will remain in Bell's treasury only a little more than $30 million in common stock available for further issue.

For 1958, company's capital expenditure program will cost an estimated $190 million. It will be financed in part from internal resources through the sale of bonds and equity financing.

Issue of stock under the proposed change in authorization remains subject to approval of the Board of Transport Commissioners for Canada.

Last previous increase in company's capitalization was in 1948 when parliament authorized Bell Tel. to increase its capital stock from $150 million to the present $500 million.

Of the 20 million shares now authorized, 17,876,352 are outstanding.

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Why They're Moving

Facts and comment on what's going on in the market and rumors behind some of the moves.

By FRANK KAPLAN

Major oils and pipelines have been fairly accurate indicators of price swings on the industrial board. They appear to show some of the sharpest losses on downturns and the best gains on any general market improvement.

After a brief two-day rally from recent new low levels they turned around and resumed the declining pattern of recent weeks. Generally, dealers report a steady falling-off in interest in developments in the oil industry.

Oils and pipelines were favourites earlier this year for some of the broadest advances. But talk of difficulties in finding markets for growing supplies of Canadian oil put a damper on investment interest.

Here are some price changes in oils and pipelines:

	Latest Price	Mid-Sept. High	End Aug.	1957 High	1957 Low
	$	$	$	$	$
B-A Oil	45⅓	48¼	47¼	57¾	43½
Imperial Oil	46¾	47½	48½	60	44½
Canadian Oil	32½	33⅓	34¾	39½	26¾
McColl-Frontenac	66	68	70¾	85½	58⅛
Interprovincial Pipe	45¾	48	48½	62	44
Trans Mountain	88	90⅞	94	145¼	83
Trans-Prairie	27	27	27	35⅜	11
Pembina	11	11	11¼	18	10

* * *

THE STREET IS TALKING ABOUT—the general apathy among investors toward common stocks. Watching and waiting is the rule with markets thin and prices tending to swing widely on any volume increase.

Aluminium, depressed sharply by a combination of a strike at Arvida and pessimistic reports of oversupply of the metal in the U. S., rebounds mildly when strike settled. At $38, the stock rebounded from a $35½ low. It had come down from high of around $50. On the other hand, **Canadian British Aluminium B** at $12¾ is down from a recent $13¾.

A puzzling firm spot is **Canadian Wallpaper Manufacturers B** which bumps ahead to a high of $17 from a recent $14 level. Low this year was $10. This stock is a quiet trader with only 103,573 B shares outstanding. Control is believed to be held in England and traders say the tight market invites sharp price swings. So far there is no evidence of any accumulation by overseas investors.

* * *

Du Pont and **Canadian Industries Ltd.** again buck the general market trend as buying interest appears, particularly from the U. S. Du Pont steps ahead to $22 from a recent $18½. Interest said sparked by talk of growing market for nylon in tires. CIL hits $19 then settles back to $18¼ for a fractional advance.

Drop in **Simpsons** to $15¼ from recent $17½ seen reflecting some selling by U. S. investors. Stock hit a new low for the year of $15.

Dominion Steel & Coal rebounds from $24⅞ to $25⅜, later settling back to $25⅛ in mid-week trading as rumors circulate of possible takeover offer from U. S. interests competing with the **A. V. Roe Canada** offer. A. V. Roe at $14¼ is down from $16⅞, possibly influenced by uncertainty over CF-100 contract.

* * *

OTHER MARKETS—Westcoast Transmission sags on over-the-counter market with investors reported to be switching out of common into the debentures sold this week. These debentures are convertible into common stock for 21 years. This new issue climbed to $108 from its $100 offering price then settled back to $104-$105. Westcoast common at $30½-$31½ was down about $2 in a week.

Other pipelines also easier. **Trans-Canada** shares at $27¼-$28½ are down $1 and the units are also down $1 at $127-$130. **Northern Ontario** common dips $1 at $12½-$13¼; **Alberta Gas Trunk** is off fractionally at $15½-$16¼.

Some interest appears for small lots of **Manufacturers Life** which firms to $218-$223 from a recent low of about $205. Shares of this company are being called in at $275 payable over five years.

No Let-up in Dosco Fight As Offer Nears Deadline

MONTREAL (Staff) — Two directors of **Dominion Steel & Coal Corp.** returned from Toronto to their Nova Scotia homes this week, still opposed to the offer that Dosco shareholders received from **A. V. Roe Canada Ltd.**

Director Frank Sobey of Stellarton, N.S., told **FP**: "I do not think it advisable to sell Dosco at the present time." Sobey visited Roe President Crawford Gordon twice in Toronto last week.

Said fellow Dosco director R. A. Jodrey of Hantsport, N.S.: "I've just begun to fight." Jodrey, it is understood, did not request a meeting with the A. V. Roe president during his two-day visit to Toronto late last week.

Sobey and Jodrey were joint signatories of a letter to Dosco shareholders recommending rejection of the Roe offer, and requesting proxies to enable them to call a special shareholders' meeting to discuss the terms of the offer.

Roe has offered to exchange 1¼ of its shares plus $10.25 cash for each Dosco share. Offer expires October 1.

Last week, a majority of the Dosco board broke their silence concerning their views of the Roe offer.

"After the most careful consideration both of the fairness of the proposal and the advantages to Dosco of an association with the A. V. Roe group, (a) majority of the directors have decided to accept the offer and are depositing thereunder their holdings of Dosco securities," President Lang stated in a letter to shareholders.

"The action of a majority of your directors in accepting the Avro offer indicates that, in their judgment, such an offer is fair and reasonable," he added.

"On the basis of full acceptance of the Avro offer and full conversion of the 240,000 cumulative redeemable preferred shares of Avro recently offered for sale and of full conversion of the outstanding Dosco debentures, Dosco security holders will receive some 39% of the shares of Avro to be outstanding, plus approximately $31 million in cash. Dosco's annual net profit in the last six fiscal years was some 39% of the combined average annual net profit of Dosco and Avro for their respective last six fiscal years.

Dividend Unchanged

"In considering the fairness of the terms of the Avro proposal, it is to be noted that the consideration offered for Dosco's shares and debentures is substantially in excess of today's market value.

"It is also to be noted that Dosco shareholders accepting the offer will receive for each Dosco share, $10.25 in cash and 1¼ shares of Avro.

"Based on the indicated current annual Avro dividend of 80c per share, each Dosco shareholder should, aside from any income from the aforesaid cash, thus receive the equivalent of the present annual $1 dividend on Dosco shares."

Mr. Lang also noted that if the deal goes through, Dosco would benefit not only from its own good management but also from the experience, ability and capable management of A. V. Roe, the latter's extensive research facilities in Canada and from the Hawker Siddeley Group in England.

"By reason of greater diversification in the heavy industry field and the demand by its many fabricating components for the products of other members of the group, the combined operations will enjoy a larger measure of stability," he said.

But from Hantsport, N.S., industrialist Jodrey who has led the fight against acceptance of the Roe offer told **FP** that he was anything but ready to withdraw his opposition.

Current objective of Jodrey's campaign is to force a special meeting of shareholders at which time the entire matter can be discussed. To call such a meeting he would require proxies representing some 25% of the company's issued capital stock or just under 634,000 shares, based on 2.5 million shares outstanding at Aug. 31.

Jodrey and Sobey, who has also backed the anti-Roe fight, control or own 150,000 Dosco shares or about 23% of the number necessary to call a special meeting.

Many Proxies

Mr. Jodrey told **FP** that to date he had received "a large number" of proxies, although the extent of the response has not yet been determined as no tabulation has been made.

He added that at the meeting of Dosco directors held in Montreal last week to consider the Roe offer, he had requested that a special meeting of shareholders be called. This request, he said, was voted down by the board.

Jodrey added that company was placing obstacles in the path of his endeavors to solicit proxies to have a special meeting called.

He said that the **National Trust Co.** (transfer agents for Dosco), although willing to supply him with a list of Dosco's 10,600 shareholders at 3c per name, had subsequently informed him that it had been instructed by the company that it would not be proper for it to do so.

He noted however, that he was at liberty to send someone to the trust company's offices to make a transcript of the stock register.

At the beginning of September, National Trust sent out, with the approval of Dosco, Jodrey's letter to shareholders and accompanying request for proxies.

Reliable sources say that there is no truth in the report published in Montreal newspapers that Dosco shareholders will receive a counter-offer from U. S. steel interests.

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Price: 98.25. Yield: 4.81%

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We invite orders for these bonds, subject to change in market price. Prospectus available on request.

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87-17

Two Firms Ask For Brazil Status

Application will be made at the next session of the federal Parliament by **Brazilian Hydro Electric Co.** and **Sao Paulo Electric Co.** for permission to move their head offices from Toronto to Brazil.

Both are subsidiaries of the Canadian holding company **Brazilian Traction, Light & Power Co.**

"This is a further implementation of our declared policy to bring our operating subsidiaries into Brazil as Brazilian companies," the parent company's president, Henry Borden, told **FP**.

Late in 1956, two other Brazilian Traction subsidiaries, **Sao Paulo Light & Power Co.** and **Brazilian Telephone Co.** ceased to be Canadian companies, and acquired Brazilian status by presidential decree.

Profits Here?

A regular listing of latest studies by investment firms.

CANADIAN EAGLE OIL CO. — J. H. Crang & Co., 40 Adelaide St. W., Toronto.

CANADIAN PACIFIC RAILWAY CO. — Leggat, Bell, Gavinlock Ltd., 464 St. James St. W., Montreal.

COCHENOUR WILLANS GOLD MINES LTD. — Doherty Roadhouse & Co., 335 Bay St., Toronto.

IMPERIAL TOBACCO CO. OF CANADA —Hugh Mackay & Co., 235 St. James St. W., Montreal.

NEWSPRINT STOCKS — Bongard & Co., 25 Adelaide St. W., Toronto.

Search Harder for Jobs Tories Will Urge NES

OTTAWA (Staff) — National Employment Service offices across the country will be told to go hunting jobs for men, not just men for jobs.

The directive will go out late this week or early next.

It results from Labor Minister Starr's conviction that there has been too much emphasis in recent years on passing out unemployment insurance and not enough on finding work for the jobless.

He is convinced that nearly all workers would rather work than draw the roughly half-pay insurance payments.

NES has always been in the job-hunting business in theory, but practical difficulties have often pushed this aspect into second place, behind processing of unemployment claims.

Some of the difficulties:

—Public criticism is swifter and surer when benefit cheques are handled slowly than when job opportunities are presented slowly. One observer told **FP**:

"A man knows when he should get a cheque, but how can he know whether we could have found him a job?"

—Job-hunting can mean discrimination, particularly among low-qualification workers. If a dozen laborers register at once, whom does NES look after first?

The new NES headquarters directive makes these additional points:

1. Job openings listed by industry must be looked after more quickly. Too often industry waits, often in vain, for skillpower.

2. If no local man can fill the job, pass the listing on for regional and national hunting.

3. Keep up the contact between local office and local industry through more frequent visiting, checking to discover industrial needs.

4. Watch for all local job openings. Don't wait for employers to send in listings.

It's hoped the new emphasis on job-finding may help weed out the minority of the labor force which wants only to work long enough at a time to qualify for extended unemployment insurance benefits —like the housewife who looks chic at NES office but frowzy by the time she gets to the suggested employer.

M-H-F Cancels Standard Offer

A share exchange offer by **Massey-Harris-Ferguson Ltd.** of Toronto to shareholders of **Standard Motor Co.** of Coventry, Eng., has been withdrawn.

The Canadian company on July 17 had offered to exchange one of its shares plus 12 shillings for each share of Standard, of which it already owned about 20%. The offer was criticized in the U.K. financial press as too low.

"Since that date there has been a material drop in the price of Massey-Harris-Ferguson shares on the North American stock markets, and it is still impossible to appraise the full effect of the French devaluation on what is an important part of the Massey-Harris-Ferguson operations," said the M-H-F announcement.

Stock of M-H-F was trading at $7⅞ when the offer was made July 17, and had dropped to $6⅞ when the offer was withdrawn last week. It was still at that level in this week's trading.

"As the directors of Massey-Harris-Ferguson have found themselves unable to improve their offer, they announced that they have decided not to proceed with the formal offer. The directors of Standard are in agreement," said the statement.

"Massey-Harris-Ferguson and Standard will, of course, continue to co-operate closely as in the past and will explore all areas in which the two companies are interested with a view to developing a closer and more profitable association wherever possible."

On news of the withdrawal, price of Standard shares on the London Stock Exchange dropped from eight shillings to 6s 10½d, or a total of £1.4 million in listed value.

114 Stocks Yield Averages 5.27%

The average yield on 114 dividend-paying stocks on the Toronto Stock Exchange, as compiled by **Moss, Lawson & Co.** on prices of Sept. 16 was 5.27% unchanged from the previous week.

Current yield compares with 5.24% one month ago and 4.62% in the corresponding week last year.

Here is the yield by various groups:

	Sept. 16 %	Week Ago %	Month Ago %	Year Ago %
Common	4.81	4.74	4.09	4.10
Pfd. & A	5.41	5.33	5.34	4.79
Mining	6.96	6.85	6.89	6.10
Banks	3.58	3.58	3.61	3.12

VILLAGE OF SALMO
PUBLIC NOTICE

The Village Clerk will receive up to 12 noon (standard time) Friday, October 4th, 1957, sealed tenders for the purchase of an issue of bonds amounting to $135,000.00 dated September 1st, 1957, redeemable serially within a period of twenty years, as per by-law, No. 53 of the Village of Salmo. These bonds fully guaranteed as to principal and interest by the Province of British Columbia.

For further information please communicate with the Village Treasurer.

FRANK FLOOD,
Village Clerk.

Dated Salmo, September 13, 1957.

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MPA

PULP AND PAPER

By PAUL S. DEACON

There's Profit in Cold Statistics

Good News or Bad, Figures Keep Investors Informed

Statistics, for some people, are a wearisome feature of life in business.

Properly used, however, they can be one of the most important aids to businessmen—and to investors.

In this issue, FP presents a special report on Canada's pulp and paper industry. Probably no industry in the country has compiled such a vast array of material on its operation. For anyone seeking facts on industry operations, all sorts of figures are available on production, consumption, capacity, etc.

One of the tests of the usefulness of this information will be the performance of the pulp and paper industry in the next few years.

The wealth of data on the industry dates back, to a great extent, to the depressed 1930s.

A proration scheme was decided on for the newsprint industry to try to spread the available business among the mills. Some were in danger of closing down as price-cutting and sharp competition took hold of the industry.

The provincial governments in Ontario and Quebec felt that whole communities would be wiped out if the mills had to close, and the result was the allocation of business to keep all operating.

Then, troubles stemmed from an excess capacity which ranged from one million to two million tons a year in the newsprint industry — an excess that hadn't just happened overnight. It had started to develop in earnest as early as 1926. Four years later, there was still new capacity coming into production.

By the time the mill building was completed, newsprint was a glut on the market. The glut wasn't just a matter of falling demand—it was mainly due to the overenthusiastic millbuilding. Newsprint demand through the depression remained relatively high, declining much less than general business, and recovering more quickly.

Prompt Reporting Of Mill Operations

In the process of building up a proration system for the industry, prompt reporting of mill operations was essential. Later in wartime, the need for good data on the industry continued, because by that time, the growth of operations had to be limited.

Postwar, the Canadian Pulp & Paper Association has considerably expanded the material available. Monthly figures on pulp production and exports were issued. Fine paper statistics were issued at first quarterly and then monthly. Wrapping paper and board data were another innovation.

For anyone wanting to keep track of industry operations, this has great advantages. The monthly four-page release on newsprint, for instance, summarizes the amount produced, the amount shipped, where it went, stocks on hand, who holds them, etc. Because the U. S. is the biggest market, it not only provides U. S. newsprint production and consumption figures but also trends in advertising, circulation, etc.

All this effort would be in vain if the material weren't used. So far at least, there are indications it has been put to good use.

All through this past 10-year period, U. S. publishers have put tremendous pressure on the Canadian newsprint industry to expand its capacity. This it has done, more by speed-up of existing machines than by installation of new ones. Until this year, it has been able to carry out the expansion at a rate which grew with demand.

Now it faces a situation once again where capacity exceeds demand. And because new additions take 18 months to two years to install, more capacity will become available next year, even though this will probably just add to the surplus.

Were all the statistics useless?

We doubt it.

Statistics Played Important Role

The potential excess demand started to show up in industry forecasts more than a year ago. Mills in Canada have certainly taken this into consideration in their plans. No new mills are being talked of, until the supply-demand picture clears.

The excess of production capacity over expected demand appears to be in the range of 5%-10%. That looks like a level of operation that most industries would regard as attractive. In the 'thirties, the mills operated at levels as low as 53% of capacity.

Investors have certainly made use of the pulp and paper industry data. More than a year ago, when the prospect of excess capacity started to show up, the prices of pulp and paper stocks began to decline.

This in itself is a deterrent to prospective mill builders. It's not easy to raise funds in a market that's not receptive.

To us, one of the most bullish features of pulp and paper is the data the industry provides.

There are still some gaps. World figures, particularly, are often difficult to get, and of mediocre reliability.

When the general or particular outlook is being considered, demand forecasts can still be wide of the mark.

Business can change quickly before what looks like logical expansion is completed. Local market conditions may make construction in another area feasible even when there's an apparent excess capacity over-all.

Good judgment is not automatic, and some mills may be built when they're not needed. Some may be left unbuilt when there is enough demand to support them.

Despite all this, the prompt and detailed reporting by the pulp and paper mills makes good judgment much more probable.

When industry data are matched with the interim financial reports of the individual companies (the pulp and paper companies are among the most progressive in Canada in providing quarterly reports), spotting industry trends becomes much simpler.

This gives the investor more confidence, because he knows he'll be kept informed —whether the news is bad or good.

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6% Sinking Fund Debentures

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The 6% Sinking Fund Debentures carry common share purchase warrants entitling the holder to purchase common shares at prices ranging from $15.50 per share to $20.50 per share up to July 1, 1963.

Salada-Shirriff-Horsey is the largest producer in Canada of marmalades and jellies, the unrivalled leader in the Canadian, and a major factor in the U.S. tea business, and a leading processor of canned citrus products for Canadian markets. The Company is also an important manufacturer and processor of candy, nuts, cocoa and other related products.

We recommend the 6% Sinking Fund Debentures as a sound investment offering above average income together with growth through the common share purchase warrants.

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Crown Zell. Net May Drop 20%

Net earnings of **Crown Zellerbach Corp.**, San Francisco, will be about $40 million or $2.80 per common share in 1957, President A. B. Layton is reported to have told an "off the record" meeting of the Boston Society of Security Analysts this week.

In 1956, company earned $50,048,000 or $3.53 a share. It has officially reported first-half 1957 earnings of $1.31 a share, compared with $1.76 in Jan.-June, 1956. This would indicate second-half earnings of about $1.49 in 1957.

Capital expenditures next year would be reduced from 1957 levels to keep them in line with sales projections, Mr. Layton reportedly told more than 100 analysts at the Boston meeting.

Some additional capacity planned earlier this year was cut back, and some eliminated altogether.

While the U. S. paper industry is operating at 90.9% of capacity, compared with 99.4% in 1956, he expected that next year's operation would be at about 94% of capacity, and that 1959 might bring still more improvement.

BEAUBRAN CORP. at Aug. 30 had 517,618 common shares outstanding.

ANNOUNCEMENT

N. H. TURNER

It is announced by Flexees Inc. of New York that Mr. N. H. Turner has been appointed General Manager of Flexees Canada Limited. Mr. Turner was formerly Sales Manager of the Canadian company. He brings to his new position vast business experience and a wide knowledge of the Canadian foundation garment industry.

MUNICIPALITY OF GRENVILLE, Que., Protestant School Commissioners have sold $210,000 5½% 10-year serial bonds to René T. Leclerc, Inc., at 95.30, indicating

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Int. Paper Hopes For Earnings Rise

MONTREAL (Staff) — **International Paper Co.** is hoping that fourth quarter earnings will be a bit above the average for the first half this year, Secretary William A. Hanway told the New York Security Analysts this week.

IP earnings were $3.04 per share in the first half. This is not far from the level established during the last six months of 1956 when earnings were $3.19 per share.

Earnings in the third quarter can be expected to drop a bit from the first half average:

"July was quiet due to vacation shutdown. September is a short month and this year it has five Sundays. We are hoping that the fourth quarter will be a bit above the average for the first half year," states Hanway.

Company's view is one of subdued optimism. In the paper end of the business, demand has not fallen off much and prices are stable on all primary grades.

The exchange premium for Canadian dollars is affecting **Canadian International Paper**, its Canadian subsidiary. With the Canadian dollar at its recent 5% premium, the adverse effect on earnings before taxes runs about $7.5 million.

IP will spend over $80 million but less than $101 million this year, in capital expansion.

Dividend Changes

QUEBEC TELEPHONE—Common, 40c, payable Oct. 1, to holders of record Sept. 14; ex-dividend Sept. 11. Total paid or payable to date in 1957, 75c; total paid to same date in 1956, 70c; total paid in 1956, 70c. Recent price: $20.

SANGAMO LTD.—Common, 17½c, payable Sept. 26, to holders of record Sept. 24; ex-dividend Sept. 20. Total paid or payable to date in 1957, 47½c; total paid to same date in 1956, 45c; total paid in 1956, 60c. Recent price: $11.

Canada Ships More Paper Abroad But Less to U. S.

MONTREAL (Staff)—Although Canadian shipments of newsprint to the U. S. and domestic markets decreased in August, there was a sharp upturn in tonnages shipped abroad, reflecting increasing sales efforts in this big potential area.

Overseas shipments jumped a big 30.3% to 72,609 tons over the like month of the previous year and continued the trend which became quite noticeable in July when shipments were up 16.8%.

On the year to date, Canadian shipments overseas are up 18.3% at 570,957 tons compared with 482,444 tons in the like month of the previous year.

With U. S. consumption down 4% on the month at 511,723 tons and off 8% at 4,450,475 tons on the year to date, Canadian shipments to the U. S. were down 10.1% at 415,214 tons in August and off .6% on the year to date at 3,428,674 tons.

Canadian consumers took 13.6% less newsprint from domestic mills in August at 36,222 tons but fractionally more in the first eight months at 315,321 tons.

With some indication of a slowdown in U. S. consumption, Canadian mills are operating at a lower level of capacity: 93.5% in August against 104.1% in the like month of the previous year and 98.1% on the year to date against 102.7% in the like period of 1956.

Meanwhile U. S. consumers' stocks have advanced to 1,156,399 tons or 58 days' supply up 28.3% from 901,592 tons or 46 days' supply in the like month of the previous year.

While consumers' stocks are higher in tonnage in August than July, in terms of days' supply they are three days' supply lower because projections are based on anticipated demand in the forthcoming months and fall is generally a heavy consumption period.

Canadian production in August was down 1.8% at 560,285 tons but in the first eight months was up 2.8% at 4,421,066 tons.

Bleached Kraft, Sulphite Prices to Rise $5 a Ton

MONTREAL (Staff)—The price of bleached kraft and bleached sulphite pulp will be increased by $5 per ton, effective Oct. 1.

Pulp companies said the increased price was due chiefly to higher freight rates as well as wood and labor costs. This will only partly recoup the extra costs since the last increase in the fourth quarter of 1955 amounting to $5 per ton on both bleached and unbleached kraft and sulphite pulps in Canada and the U. S., it was said.

It will increase the price of bleached sulphite from $150 to $155 per ton and bleached kraft from a range of $155 to $157.50 per ton, varying with quality, to $160 to $162.50.

It is expected unbleached kraft and unbleached sulphite will remain unchanged in price in Canada. However, there has been an increase of $5 per ton in unbleached sulphite pulp in the U. S., while unbleached kraft has remained unchanged.

In bleached kraft and bleached sulphite pulps, demand has been relatively steady for some months. There has been considerable new capacity in North America which has come into operation and has resulted in supply exceeding demand at mills.

In pulp generally, there is cautious optimism despite the substantial amounts of new capacity coming into operation this year and next.

Some speculation anticipates an increase in demand because inventories are down at the converter and converter products level, partly due to tight money generally. However, others expect that the market will continue to move sideways for another few months at least.

INTERNATIONAL PAPER CO. at Aug. 23 had 12,181,480 common shares outstanding.

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Aluminium Ltd. Earnings Down

MONTREAL (Staff) — Reduced volume of sales and increased operating costs will reduce **Aluminium Ltd.'s** third-quarter earnings to a level well below the second quarter, President Nathanael V. Davis said this week.

Earnings in the first quarter amounted to 50c per share and in the first half totaled 88c.

Present production schedules call for the prompt reactivation of a major part of Alcan's smelters facilities.

After a shutdown of four months it will be several weeks before Arvida can resume normal operations.

"The strike at Arvida has involved loss of wages to employees and has also adversely affected the company's earnings," Davis said.

"During the strike period approximately 55% of **Aluminum Co. of Canada's** facilities were operated but operating costs were higher than usual due to the necessity of obtaining alternate sources of supply of certain raw materials.

"Some sales were lost through inability to provide certain types of products, but by drawing down on metal inventories and arranging deferment of some deliveries the Aluminum Co. of Canada has been able to satisfy substantially its customers' requirements."

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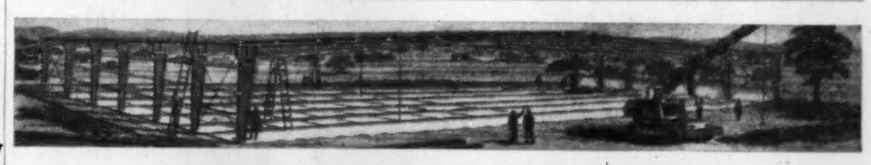

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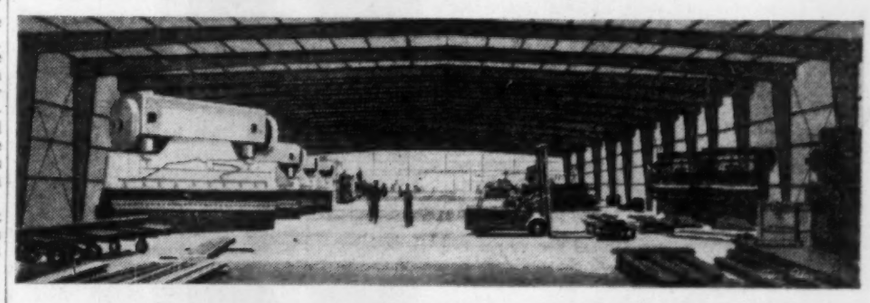

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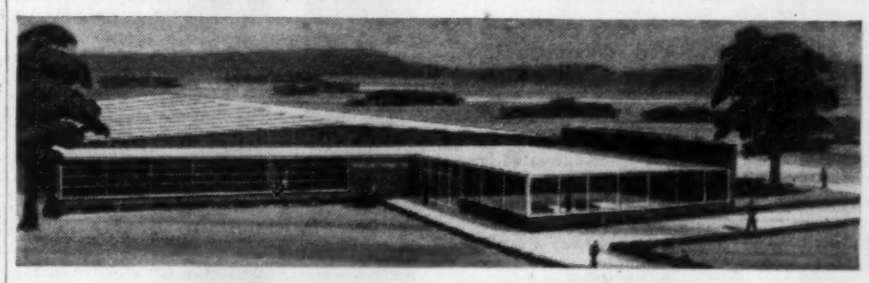

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Little Rock and Beyond

No matter how our American neighbors finally resolve their difficult racial problem, their answer to it will have effects beyond U. S. borders.

Total integration and equality might lead to intermarriage in a few generations. This would alter both the national temperament of the Americans and their foreign relations in ways now incalculable. Continued segregation, if it puts the Negroes at a disadvantage as it has in the past, could hamper future Western efforts to cultivate goodwill in Africa.

Two important points are sometimes forgotten. The question agitating Little Rock, Arkansas, is not regional but national; and the famous Supreme Court ruling did not make any particular solution mandatory.

Little Rock has 28,000 Negroes or 24% of its population. These figures compare with 375,000 (44%) in Washington, D.C., 217,000 (22%) in Cleveland, 375,000 (19.6%) in Detroit, 456,000 (20.7%) in Philadelphia. In every northern city the colored percentage has risen sharply since 1940. In nearly every southern city it has fallen.

Though there's no segregation by law in the north, it exists to a large extent in practice (New York's Harlem is the best-known example) because of free choice, usage, restrictive covenants or economic necessity. But the steady northward Negro migration is creating pressures that could become explosive.

The Supreme Court did not rule that Negro and white children should go to school together. It ruled that admission to any school should not be denied on grounds of race or color.

Thus there would be no problem if there were no demand by colored people for enrolment in white schools; and there might be no demand if they had been offered "separate but (genuinely) equal" schooling, a formula that satisfied earlier Supreme Courts for generations. Perhaps it's too late to give this formula a fair trial.

The Business Outlook

A "gradual climb from the present economic plateau in the next few months" is predicted by Rhys M. Sale, president, Ford of Canada; and Mr. Sale points out that the plateau is at a pretty high altitude.

In his own industry there has been no excuse for talk about the bottom falling out of the market. Motor car sales for 1957, he estimates, will be only marginally below the all-time peak reached last year.

Mr. Sale's business philosophy is soundly optimistic. Nothing, he says, can stop Canada's economic advance because there's an assured future demand for the goods that Canada is well-equipped to supply. But it's unrealistic, as Mr. Sale says, to expect that each year will set new records. There will be dips as well as high points in the upward graph. There will be some flat spots in between.

The important point is that present signs in Canada give no ground for the kind of depression talk, or recession talk, that can itself help to create hard times. Comparing last July with the same month in 1956, the national labor force was up, unemployment was down, retail trade was up, savings were up, repayment of instalment debts was up. If there's any falling-off from 1956, it's only a wrinkle in the highway.

Frontier Financing

Some New York analysts are pointing out that the current relationship of prices and yields on bonds and stocks form a pattern reminiscent of the days when the American west was being opened up: a pattern of frontier financing.

If this is the case, it's not surprising, and the tendency may persist, since a frontier is, in fact, being explored. It's not a geographical frontier, but a technological one. Its explorers are not making their way down rivers, but are following trends of thought.

The existence of this technological frontier has been apparent for some time, and exploratory work has been carried on by the more venturesome firms and the more well-heeled individuals: the Cartiers, Cabots and Champlains of industry.

For the past 15 years population growth and postwar reconstruction have provided plenty of opportunities for most firms to make money without leaving familiar territory. It is only now, as wartime backlogs are finally caught up and population growth patterns change, that the frontier fever is taking over.

Life on the frontier is risky, as any seven-year-old follower of Radisson or Crockett can testify; but the community is enriched by the enterprise of the bold frontiersman, and the capital that finances his explorations is, in the long run, well repaid.

Stop Propping It Up

The first hint of the new government's wheat policy came in a Winnipeg address last week from Trade Minister Churchill. He suggested that Canadian wheat production be kept down to approximately 400 million bushels annually, or 85 million below recent average. To take up the slack he would have farmers switch from wheat growing to cattle.

Certainly since the end of the war Canada has been growing more wheat than she has been selling. And if we can't sell any more then it is only common sense to turn to something for which there is a demand.

Had there been a free market for wheat as there has been for cattle since the end of the war, that is precisely what farmers would have done. Instead, in the face of a steadily falling market, wheat prices to the farmers have been guaranteed and guaranteed substantially above world markets. No wonder wheat production has gone up.

If the new government really wishes to reverse that trend it will have to stop bonusing wheat.

After Oil — What?

Right now, in producing countries at least, the world is more concerned with markets for oil rather than supply. But looking ahead the picture is very different.

"Within 30 to 40 years, unless a new synthetic source is discovered, oil will have become far too valuable to be burned for heat and fuel and will have to be reserved exclusively for its most essential use." That was the solemn warning of a Columbia University professor speaking at the scientific conference in Toronto last week.

Probably this will prove true enough. But there is no need for alarm.

There have been a lot of changes like this in the past and it is quite certain that there will be more in the future. Looking back 30 to 40 years, little oil was being used for heating. Coal was the common fuel. And 30-40 years before that it was wood. Before the end of the present century it may well be uranium.

In this business of supply we can take comfort in the fact that seldom has the world run out of a natural resource before a substitute, and usually a better one, has become available.

The ICBM Race

Debate continues on just how good the Russian intercontinental ballistic missile is. And on this point there is an interesting sidelight in the Churchill history of the Second World War, volume 6, chapter 3.

Between September, 1944, and April, 1945, he relates, the Germans launched 1,190 V2s against London; about 500 hit the city. The V2 was a ballistic missile. It had a range of 207 miles and a maximum speed of 4,000 miles an hour. In flight it rose 50 miles off the earth. Its journey from European base to Britain took three or four minutes.

If battered Germany could make these weapons in 1944 at the rate of 618 a month (another Churchill figure), it's quite credible that the Russians in 1957 have produced an ICBM that rises hundreds of miles and can travel from Moscow to New York, or further, at 15,000 mph.

V2s carried only one ton of old-fashioned TNT, peanuts even by 1944 standards. ICBMs could carry nuclear bombs. If the U. S. is not far behind Russia, as it now appears, it looks as if the two super-powers will soon have "the ultimate weapon" in quantity. It's a weapon they may never use but can't abandon until there's political confidence between them.

Campus to Cabinet

The step from campus to cabinet is not as long as one might suppose. University presidents in young countries must be astute politicians in the best sense of that much mis-used word if they and their institutions are to survive. Dr. Sidney Smith has been a master of his craft.

The new Minister of External Affairs is undoubtedly a scholar, but not a cloistered scholar. He is, in the proper sense of the phrase, a man of the world, and he leaves no ivory tower to enter the East Block. If he is not an "expert" in foreign affairs himself, he is well acquainted with those who are.

Dr. Smith was born in the Maritimes, taught at Dalhousie and lived for ten years in Manitoba. He can thus claim direct experience of life in two areas of great political importance to the Conservatives in the next election: the Atlantic provinces, where they must hold what they have, and the west, where they may stand a chance of making gains from the CCF. In this respect, Dr. Smith might be a triple-threat man.

What's more, the new Minister's name is short, easy to remember, and fits neatly into a one-column headline. His features and mannerisms (not unlike those of the late F. D. Roosevelt) will be readily identifiable in political cartoons. It's hard to see how the Conservative strategists could possibly have wrung any more advantages out of a single political appointment.

Is Civil Defense a Myth?

It is every citizen's duty to co-operate with the federal authorities in developing and maintaining civil defense, stated President Eisenhower in a special talk launching Civil Defense Week in the United States.

The much-publicized CD Week, one American writer explains bluntly, "was designed to attract greater interest in a program that so far has not aroused any great enthusiasm nationally." And it doesn't seem to have aroused much enthusiasm in Canada either.

The big trouble so far as the average citizen is concerned, is that he just doesn't know what to believe is the best or the possible defense for the civilian population in an atomic war, or if there is any defense at all.

He has been told that he should disperse main industries and essential services like hospitals and communications centres. Yet all about him he sees big cities getting bigger, and still more concentration of industry and hospitals.

At the same time he is told that he should be prepared to co-operate in grandiloquent plans that pretend to call for the complete evacuation of our biggest cities in a matter of hours.

Having had some first hand experience with weekend and rush hour traffic jams, when only a relatively small portion of the total population is involved, the citizen is doubtful of the success of any master plan of mass evacuation. He remembers stories from the last war where defense was paralyzed rather than helped by civilians blocking the highways.

The blunt truth is that the civilian population of Canada and of the United States has not been "sold" on civil defense. That must come first, then some practical plan, if there is any.

Support the TSO

The Toronto Symphony Orchestra is offering its audience an opportunity for creative giving —a form of philanthropy that is at least as necessary in a civilized state as the merely almsgiving variety of which we now have so much in sundry forms.

Like every other organization of its kind, the TSO shows a yearly deficit; receipts at the box-office and from grants and broadcast fees are less than expenses. Gifts from companies and individuals make up the shortage.

But the TSO comes far closer to making ends meet than other leading orchestras in North America. Last year it received $80,000 in donations. For 1957-58, with expenses estimated at $350,000 and ordinary revenue at $225,000, it needs $125,000. Last year the Pittsburgh symphony, with a similar season and a smaller population to draw on, collected $270,000 in gifts.

The TSO ranks with the ten best orchestras on this continent; it brings honor to Toronto. Its members earn, on the average, only $80 a week from TSO work during the 24-week season. In the forthcoming season they will give 26 free pop concerts on Sunday afternoons and 24 subscription concerts.

The TSO should have generous public support. It will welcome donations from those who hear its music on the air as well as from concert-goers.

Napier Moore's Scratch Pad

TO GIVE ITS EMPLOYEES the incentive of feeling they were part owners of the company for which they work, giant Imperial Chemical Industries (employing well over 100,000 people) gave them, free, 1,187,522 bonus shares worth about $5.60 a share.

No sooner had they got the shares than many of the workers in the firm's Stockton and West Hartlepool plants, ignoring the company savings bank, which offered facilities for looking after shares, rushed to stockbrokers to sell them for cash. The Sunday Express reports that such was the rush that one Stockton broker, who had to keep open till 10 o'clock at night, called a halt until further notice to give his staff time to catch up. He said that in his office alone five or six hundred workers had cashed between 30 and 40 shares apiece. At West Hartlepool, a broker said, "We have been rushed off our feet. The men just don't understand the value of the shares. All they want is money."

Local stores, particularly those selling TV sets, reported that business had taken a spurt. "It's like Christmas shopping," said one manager.

I. C. I. officials are disappointed that so many workers don't want to have an interest in the business, but don't agree with one broker who said the scheme had been a failure.

* * *

ON THE OTHER HAND, 500 shareholders of Canadian and English Stores were so concerned about their part-ownership of that enterprise that they turned a company meeting into a bedlam, howling and screaming with such vigor that the Great Hall of Winchester House shook. Reason for their anger (they refused to pass the company's accounts) was that the value of their shares had tumbled from 30s. to 5s. 3d. following a no-dividend announcement and an overall loss close to $2,800,000. The previous year there had been a profit of $2,250,000.

It was Harry Brook and his wife who built the company up. Its chairman is Lord Milner, former Socialist MP, who, when he could make himself heard, blamed the Government's toughening of controls on instalment buying. He announced that Stanley Swash, former head of Woolworths, who has a reputation as a business "doctor," had agreed to join the board. In the din, somehow or other, it was agreed that a shareholders' committee should consult with the board.

* * *

COPIES of the New York Post containing an advertisement which smells have reached London. Sales appeal is for frozen fresh strawberries, and in addition to color the odor of the fruit is obtained by mixing chemicals with the printing ink.

Not quite so fragrant is the position in which a number of British newspapers find themselves as a result of rising production costs. The Trades Union Congress at its recent conference passed a resolution registering profound disturbance over "the demise in repeatedly increasing numbers of national and provincial newspapers." Stating that among the causes was the high cost of newsprint, the T.U.C. instructed its General Council to press for an immediate investigation by the Monopolies Commission.

Union speakers claimed that with newsprint priced around £60 a ton, the producers are making a combined profit of £27 million a year.

* * *

RALPH WALDO EMERSON wrote, "Money, which represents the prose of life . . . is in its effects and laws as beautiful as roses."

In Geneva, British typists and secretaries who work for the World Health Organization are finding that life's prose can be duller than poetry, and that roses have thorns.

On two-year contracts, the girls get salaries regarded in England as fabulous — from $40 to $98 a week, free of tax, plus foreign allowances and free transport of furniture. Yet they are leaving their jobs. Why aren't they happy? A lovely setting, but no life, no romance. Too many women for too few men. And the Swiss lads fight shy of foreign females who earn two or three times as much as they do.

* * *

BRITISH TRAVEL and Holiday Association announces that during the first seven months of this year 780,000 tourists visited the U. K. Due to the Suez Canal crisis there was a slump in April and May, but July was a record month — 250,000 foreign visitors, a 13% increase over last year. One quarter of all visitors are Americans.

The Association says that tourists bring in as many dollars as the exports of cars, aircraft and whisky put together. In addition to figures and percentages, the report has a leavening of human interest. For instance, the questions put to its enquiry staffs. Example: "What time does the performance start at Piccadilly Circus."

Stop Me, If—

At a birthday party, one sweet thing advanced on her hostess and presented her with a huge electric fan.

"Here, darling," she cooed, "this will help you blow out the candles on your cake."

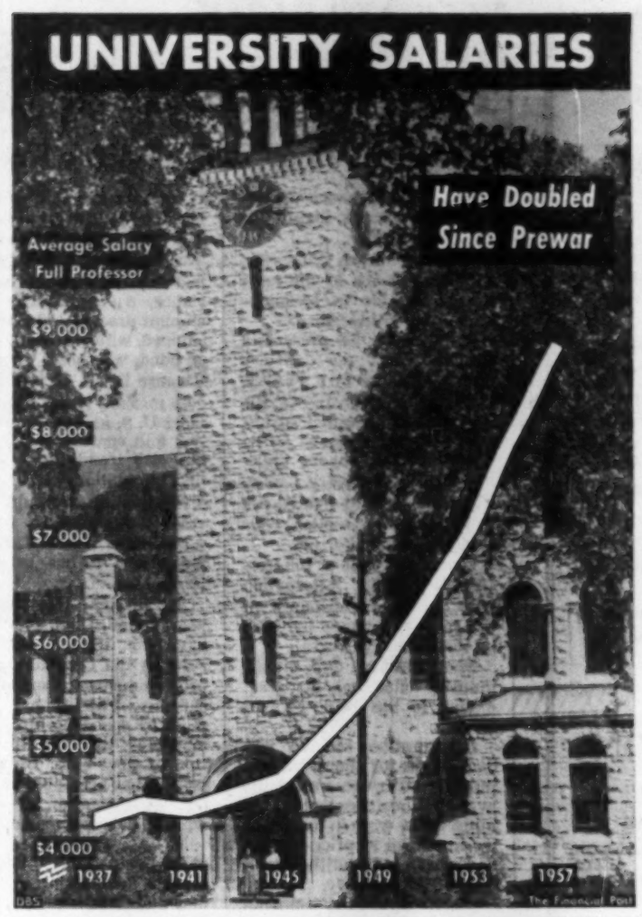
* * *

Harry, who made it a practice to visit the bars on his way home from work, was late as usual for dinner. But this time his wife decided to go and bring him in.

Finally finding him in a bar near his office, she climbed up on a stool and told the bartender: "I'll have the same as his."

The bartender returned with a slug. She gulped it straight and her face turned purple. "How can you," she gurgled, "drink that awful stuff?"

"See, sweetheart," replied her husband. "And all these years you thought I was having a good time."



Post Scripts

Honored for Industry

Just after the turn of the century, a Chicago contracting firm sents its superintendent to Winnipeg on a building job. He never went back. A few years later he formed his own construction firm and became a Canadian citizen. At 83, William Henry Carter, is still actively directing his own firm.

MR. CARTER

This week, at a special ceremony in Victoria, he received the Canadian Industrial Award, from the Provincial Governments' Trade and Industry Council, as the citizen who "had made a most significant contribution to the industrial development of Canada."

As one of the pioneer industrial contractors in Winnipeg the firm headed by Carter erected some of the biggest and best known buildings in Winnipeg and Canada, including the civic auditorium in Winnipeg, the Banff Springs and Lake Louise hotels in the Rockies and the Empress in Victoria.

But Carter was more than a contractor. In 1911 he became first president of the Industrial Development Board of Manitoba. Realizing that the opening of the Panama Canal meant the end of Winnipeg's monopoly as a gateway to the Canadian west, he set about attracting new industries to his adopted city and province. He and his colleagues are given the major credit for bringing the needle trades to Winnipeg, for the introduction of sugar beet, pulp and paper and other industries. Naturally he was interested in power and in 1935 became vice-president of the Winnipeg Electric Co., and five years later its president and general manager. At this time he split up his original contracting firm, selling the western half.

Carter ran the Winnipeg Electric Co. until the province purchased its electrical facilities in 1953, and for the next three years carried on as chairman of the Greater Winnipeg Transit Commission, a publicly-owned transportation system purchased from the Winnipeg Electric Co. on its break-up.

Then at 82 he went back to contracting taking over the presidency of Carter Construction Co. and he is still there.

* * *

New Lumber Boss

A 51-year-old hard-working executive who has spent most of his life in the timber business has settled into the tough job as president of MacMillan and Bloedel Ltd., the Commonwealth's largest lumber corporation. He is Ralph M. Shaw who was officially confirmed as president last week.

Shaw, who has been vice-president in charge of sales, succeeds H. S. Berryman who suffered a heart attack some time ago and stepped down from the presidency to accept a less strenuous executive position.

Ralph Shaw is a product of the MacMillan organization. He was born in the Yukon in 1906 but came to Vancouver as a lad with his parents. He was educated in Vancouver and studied two years at the University of British Columbia before quitting to work as a hard rock miner. He later became a timber cruiser and then joined, H. R. MacMillan in January, 1928, as a documents clerk. Six months later he was promoted into the sales department and by 1948 had risen to general manager in charge of sales.

During the Second World War he was on loan to the federal government where he was in charge of export section of the Canadian Timber Control.

The same challenge that faced him as sales vice-president faces him to an even greater degree as president. That challenge the squeeze the West Coast lumber industry finds itself, caught between falling prices and rising costs of operation.

"The big problem facing the industry is to try and reduce costs in order to keep us competitive in world markets. It's my job to try and find the answer," he said recently.

An energetic executive, he is at work by 8 a.m. each weekday while most of his staff are still drinking their breakfast coffee.

He says his chief hobby is "selling our forest products around the world." But he also finds time to take amateur movies or take his speedboat out for a spin in Vancouver harbor.

* * *

Sales Tour

Peter H. Redpath, vice-president of Canadair Ltd., is on an important six-week mission. He will visit the headquarters of many of Europe's airlines and air forces in an effort to sell Canadair products. His order book will have space for additional Sabre orders —already selling well abroad — and three newcomers, the CL-44 turbo prop transport, the CL-28 anti-submarine patrol bomber and Canadair's new army snow and cross-country vehicle.

Canadair, in common with many plane builders, is at present at something of a crossroads. Straight military orders are tailing off. The search is on for a wider market. A great deal of Canadair's future is fairly and squarely tied to overseas sales of military planes, commercial orders and non-aviation products. All these will be in Redpath's brief case.

MR. REDPATH

Redpath was born in Montreal and educated at Ashbury College in Ottawa, later in Britain, and finally at the University of British Columbia in Vancouver. In 1922 he became a cadet in the Canadian Government Merchant Marine, and rose to the rank of Second Officer with that line, serving at times also as a deck officer aboard ships of other Department of the Canadian Government and with Canadian and U. S. tanker fleets.

He entered aviation in 1929, receiving his transport pilot's certificate at San Diego, Calif., and then for three years operated a school of marine and air navigation. He was among the early challengers of the Atlantic, attempting a flight across the ocean in 1932 in a Sikorsky Amphibian. A storm ended the flight in a forced landing off the east coast of Greenland.

In 1932 Redpath joined Transcontinental and Western Air—now Trans-World Airlines—as a pilot and instructor in navigation. In 1941 he was appointed chief navigator for the Intercontinental Division of TWA under the U. S. Air Transport Command, and was responsible for the accelerated program of navigators' training.

In 1943 he flew with Joseph Davies, Roosevelt's personal emissary, on a flight to Russia and around the world, in the following year he was assigned by TWA to a special aviation mission in Stockholm. Early in 1945, on his return to the U. S., he was appointed by TWA to the staff of the Chairman of the Board, and specialized in international affairs.

In 1946 he returned to Stockholm to join Scandinavian Air Services, which was just being organized jointly by Denmark, Norway and Sweden to operate between those countries. In 1950 he left SAS to join Canadair.

Redpath retains a close association with the airline industry, as an adviser to two European airlines.

What Others Are Saying

Editorial of the Week

Canadian Interests Must Come First

Calgary Herald

Mr. Diefenbaker (in his New Hampshire speech) forcefully put the case for Canada. He said Canadians were concerned with the U.S. policy of wheat surplus disposal, export subsidies, barter deals and sales for foreign currency. He pointed out that Canada can not compete in a "give-away" market and asked for the same co-operation in economic matters which exists in defense.

The Prime Minister pointed out in no uncertain terms that "there is an intangible sense of disquiet in Canada over the political implications of large-scale and continuing external ownership and control of Canadian industries."

Americans would do well to realize the Canadians are at last taking stock in a belated, but not too late, effort to ensure that Canada's interests are served first, preferably with the goodwill and friendship of the United States.

Other People's Views

ALMOST AS OBSOLETE as the Model T is the little red school house, says the **Calgary Albertan.** "Forty years ago, even 25 years ago, rural Alberta had a little red school house (it was nearly always white or cream) every four miles each way. Now they are almost all gone."

THE CANADIAN MILITIA might be well advised to take the official hint and convert to civilian defense, suggests the **Niagara Falls Review.** "During the last four years we have been watching the gradual collapse of the Canadian militia. With all of the favorable publicity given to the groups that compose it, the membership has dropped 7,000 since 1953."

THERE STILL LINGERS an impression that only British immigrants can keep Canada Canadian, says the **Vancouver Sun.** "We will always welcome British immigrants, probably with special concessions as we now do. But what we want here in Canada, wherever they may come from, are Canadians. And we can make a Canadian out of anybody who brings the right attitudes with him."

LET'S GET ON with the Trans-Canada Highway, urges the **Montreal Family Herald.** "Regardless of claims and counterclaims, a growing public is interested, not in politics, but in being able to cross Canada all the way by automobile. Squabbles over authority should take second place to the general welfare, to speed the day when the Trans-Canada Highway will be complete — an event which will be almost as significant in this country's history as the opening of the Canadian Pacific Railway."

THE AMERICAN PUBLIC would be wise to take into account that we have a new government in Canada, thinks the **Montreal Star.** "The Liberals encouraged the big post-war boom and decided to take the rough with the smooth. The Conservatives may not be content to follow unquestionably the strict Liberal line. They may go in for a bit of trail-blazing to see if there are other paths that can be safely and profitably followed. Private investors and traders in the United States would be wise to pay some heed to the patient suggestions now being patiently made to them from Ottawa."

PRESIDENT EISENHOWER'S principle of freer trade has suffered a serious lapse, says the **Victoria Times.** "Mr. Eisenhower is widely and highly respected by Canadians. He is regarded as our friend. His earlier efforts to reduce trade restrictions, his courageous resistance to protectionist demands from some quarters raised high hopes in this country a few years ago. His many preachments against tariffs were warmly echoed not only in the words but in the policies of the Canadian Government. His recent wavering, however, is calculated to undermine these Canadian expectations and also to encourage a more protectionist policy here under a new Government."

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September 21, 1957

The Uncertain Future of Man

Can Our Planet Support Seven Billion People in 2050 AD?

By J. B. McGEACHY

The future of man is as popular a topic as it ever was. But a great change has come over the forecasters' methods and conclusions.

They used to write poetically about man as a social being. Now they dissect him in a scientific spirit as a creature who eats, procreates, travels fast, works with machines and needs a lot of steel, copper, tin, uranium, oil and other minerals to be happy. They reach grim but not necessarily fatal conclusions.

The socialist Utopians, from Plato to Bernard Shaw, had a long run. They thought of human nature as improvable by education or even, as Shaw affirmed, by act of parliament. They were obsessed by politics. The changes they expected were in forms of government.

Maybe the last of these optimistic Utopians was Shaw. In the final act of his "Back to Methuselah," looking ahead "as far as thought can reach," humanity has become an egg-laying species. Its members are born as adults with enough brains to pick up a working knowledge of English within half-an-hour of breaking the shell. They live 300 years, or perhaps as long as they wish, and spend the time mainly in philosophical conversation.

An example of the new and scientific approach is "The Next Hundred Years," just published by three teachers at the California Institute of Technology, Harrison Brown, James Bonner and John Weir. Two others are Sir Charles Galton Darwin's "The Next Million Years" and Sir George Thomson's "The Foreseeable Future."

An interesting thing these books have in common is that they hardly discuss either human nature or politics. It takes a million years to make a new species, says Darwin (C. G.), and that means no predictable improvement in the pugnacious, hungry, sex-driven wild animal called homo sapiens. He's a wild animal, says Sir Charles, because there's no other beast in sight than can tame him as he tamed horses, cats and dogs.

No Change in Man

The other writers also take this for granted. There are no egg-laying philosophers in their calculations. It is presumed that man will continue to be governed mainly by his physical appetites, including those that technology has given him, by his emotions and by rulers who may be competent or incompetent.

If all this is assumed (and it implies of course that the mind-healers are not going to be much help to the race as a whole) there's a clear danger that man may blow himself up with his nuclear devices. Darwin notes that a genuine hydrogen explosion (not approached in the current so-called H-bomb) would set fire to the sea. The earth would then blaze as brightly as the sun for a matter of months or years. Man would go out like a light.

This could happen; but obviously the discussion can only proceed on the assumption that it won't.

With this starting point, the scientific investigators of the future ask: How many human beings can the earth support? If the race keeps growing at the present rate, can conventional agriculture produce enough food? What happens when humanity runs out of the fossil fuels, coal, petroleum and now uranium, it is today consuming at a fast clip? What about exhaustion of other essential minerals like copper?

J. B. McGEACHY

"Technical advancement everywhere (and this is the declared goal) must some day mean hot competition for materials that exist in finite quantities."

These may look like academic questions if North America is considered in isolation; but this is a fortunate continent. It's still thinly populated, by Asian or even European standards. It's at present troubled by surpluses of food. It has plenty of coal and iron. The global picture, however, is far less bright; and even the North American picture looks cloudy if one projects rates of consumption for a few generations.

"One World"

Taking a very long view, of course, it's not practical to look at any part of the earth alone. Suppose that at some future date the people on the Eurasian land mass, through overcrowding, can't find the necessities of life on their own terrain, and suppose they have the means of mounting a modern invasion, won't they come and seize the plenty where it still exists?

To take the basic question first, there are now about 2.6 billion people on the planet. Future birth and death rates are not exactly predictable; but the race is multiplying faster than at any previous time. If Costa Rica's rate of annual increase, 3.7% or Formosa's 3.5%, became worldwide, there would not be standing room anywhere a century hence.

If the world average rate of increase continues to be only 1%, total population will be seven billion in the year 2050. The number will be twelve billion if a rise in the rate to 1.5% is assumed. These figures are from the California experts; and they add this sombre item of information. In the 40 years before the Second World War there was a world population gain of 30%; but food production rose by only 10% to 15%. In other words, the hungry got hungrier in that period.

If this looks like a confirmation of Malthus, that is just what it is. Malthus, who wrote 150 years ago, said that humans could multiply geometrically, i.e. at the rate of 2-4-8-16-32 and so on, while food could only increase 1-2-3-4-5. Because nearly all "Western" countries are far better fed than they were in Malthus' time, he has been called a false prophet. But the unequal race between food and population that he worked out theoretically can, and does, take place in some parts of the world.

Malthus said that war, famine and pestilence were the natural checks on population. He couldn't foresee modern technology, modern medicine or large-scale voluntary birth-control. The question today is whether science can replace or make unnecessary the Malthusian limitations.

All the writers I mentioned are advocates of birth control; but none of them appears to believe it will be practised where it's needed to the extent that it's needed. Sir Charles Darwin, evidently a neo-Malthusian as I understand the word, says it will never be "spontaneously" adopted by all mankind. Nor, he says, will it ever be imposed by an international authority; for who would decide and agree that this or that country should have only X million people or 2X or 3X?

Darwin thinks there will always be just enough people to eat all the food in sight — no fewer because of the sex urge, no more because of starvation. But he, Thomson and the California men all believe in the possibility of getting a lot more food from the earth.

Not From the Sea

Not much more will be found in the sea, it's generally agreed. It takes 100,000 lb. of algae to make one pound of codfish (a microscopic creature eats the algae to begin with, is eaten in turn by a larger one and so nearly to infinity until protein fit for humans emerges). The soil, however, could yield much bigger crops by intensive methods. The Japanese use 56 kilos of fertilizer per cultivated acre and get back 13,200 calories per acre per day. Figures for the U. S. are 11.6 kilos and 4,500 calories.

There's the possibility of nourishment from grass or wood or chemicals; vitamins of course are a chemical food now in use. Or we can live on grains and vegetables instead of extravagantly feeding plants to animals and eating the meat. Most human beings live on this diet now.

To descend from science to politics, give-away food programs are not popular at the moment; in Canada anyway; but they are also (to return to science) absurdly ineffective in assuaging the world's hunger. No conceivable North American surplus could feed the Asians. Besides, North America will itself be filled up in time — though not, one may hope, as densely as Asia.

Man, of course, does not live by bread alone; and this is especially true in the countries that are technologically advanced. Here are some remarkable figures from the California investigators. To keep all the wheels turning and everybody happy in the U. S. today, there must be produced every year in that country for each person (man, women and child), 1,300 lb. of steel, 23 of copper, 16 of lead, 500 of cement, 400 of clay and 3.5 tons of stone, sand and gravel. To bring the whole world up to American standards overnight, it would be necessary at once to produce, smelt and refine 18 billion tons of iron; this is more than three times as much iron as has come out of the planet since cavemen made iron implements.

It might be just possible to find the 18 billion tons of iron; but the quantities of copper, lead, zinc and tin also required to put every last Asian and African on the North American easy street are nowhere in sight.

What conclusions do these statistics lead to? The most obvious one is that motor cars, telephones and steel skyscrapers won't be available to Asians and Africans in North American volume for a very long time—if ever.

U. S. Looks Abroad

One adds "if ever" because the Americans themselves are now estimating their future needs in global terms. They thought they glimpsed the end of their domestic iron reserves when the Mesabi range ore began to thin out. Canada is coming to the rescue; but the U. S. is looking for iron in Brazil, Venezuela, Liberia and India as well. The end of American oil, though not coal, is in sight (there are various estimates of how long it will last) and the U. S. is now looking far afield for new sources.

There is undoubtedly enough oil and iron left in the earth to meet American import requirements for a long foreseeable future. But it may be asked if the foreign supplies will remain forever available for American use. Supposing the original owners catch up in technology, what happens?

This political issue doesn't trouble the scientists; and perhaps it's a bit far-fetched to imagine the people of, say, the Middle East or India with one motor car for every three inhabitants. The traffic jams in India, with 150 million cars, would reduce the whole subcontinent to immobility. Nevertheless, it's plain that technical advancement everywhere (and this is the declared goal) must some day mean hot competition for materials that exist in finite quantities.

The California experts have a partial answer. Early man found copper crystals on the earth's surface. By 1900 there was smelting of ore with a 5% copper content. Today .6% ore is good enough to be used profitably. Anything vegetable, animal or mineral is "a resource" if man can develop the power to process it.

When oil and coal run out, man will still have forests to burn (wood was the chief American fuel up to about 1880) but is more likely to use energy from the sun, the earth's interior, the tides or, most valuable of all, nuclear fission.

The coming technological age (it has only begun) will evidently demand many more scientists, engineers and technicians than any country, or the world as a whole, is now producing. How to turn out a larger number? Darwin, Thomson and the California men all discuss this problem; but there's an interesting difference in approach.

More Brains Wanted

From the American point of view, it is simply a question of finding, training and then suitably paying all the people with the necessary brainpower — in the existing population and its progeny, planned without design. Darwin wants more clever people born.

He complains about "universal discouragement of procreation by the ablest." Any nation could lead the world, says Sir Charles, by discovering how to raise the birth rate among the bright.

The only general conclusion is that the next era will be unlike any other and that humanity as a species may or may not be able to cope with it. But there will be a long "meanwhile" of enjoyable prosperity for this continent with its small population and fabulous stores of wealth.

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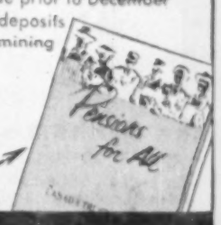

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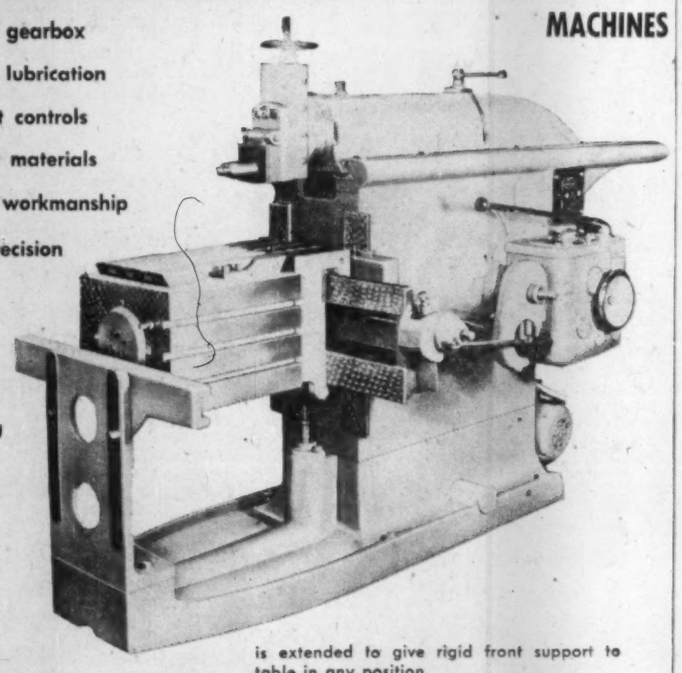

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FP SURVEY

Steel Orders Tips On Business Tempo

Perhaps more than at any time in the last five years business has its eyes on the forward orders position in steel.

From here would likely come the first tip-off on any important change in business tempo.

At midweek an FP survey of basic producers and warehouses revealed general unanimity on two points:

- **There are no convincing signs** as yet of any major upturn in fall business.
- **Business, on the other hand, is holding** at fairly good levels — about the same as in the second quarter (third quarter is usually down seasonally with holidays).

There has been some noticeable upturn in orders over last three to four weeks, but this is looked on still as more in the nature of the usual post-holiday orders increase.

There is no doubt that the bulk of steel consumers are still largely operating from inventory and just putting in spot orders against business in hand that cannot be handled from stocks.

There's still a marked disinclination to commit themselves for sizeable supplies over a two to three month delivery period.

On the other hand it is heartening, warehousemen and steel makers say, that these spot orders are coming in in sufficient volume to ensure a continued fairly high level of plant operation.

If this was augmented by just a modest amount of forward buying for stocks, mills could rapidly snap right back close to maximum capacity output rates again.

As it is, total steel ingot production will not likely be far off last year's 5.2 million-ton peak.

Generally speaking demand for steel that goes into consumer goods — appliances, automobiles, housing in particular — has been hardest hit.

This involves mainly cold rolled sheets but also some hot rolled and galvanized sheets.

On the other hand the demand for steel going into capital goods has remained at a very high level — storage tanks, oil and gas pipelines, railway cars, ships, etc.

This means heavy steel plate, to a lesser extent bar products.

The mills that have the capacity — and are flexible enough — to switch increasingly to the capital goods market are able to turn in the best operating performance these days.

Warehouses specializing in structural steel say demand is holding at a high level reflecting continued activity in the industrial construction field.

One basic steel producer specializing in flat rolled products claims business is rapidly getting back to the normal seasonal pattern.

Galvanized sheets and tin plate demand is off reflecting lower housing activity and end of big canning season. A moderate reduction in railway car building programs has also affected production level of steel castings in their foundry department.

"But 1957 will be another good year," a top official in this firm said, "although not quite as good as last year."

The Cabinet Will Be Busy But What's Policy Line?

OTTAWA (Staff) — Increasing concern is being expressed by many people close to the government at the delay in reaching positive decisions about economic and trade policy.

Fear is expressed that the Cabinet has allowed itself to drift right under the gun of a vital series of international meetings without settling any basic policies.

The international schedule starts this weekend and continues remorselessly right up to the opening of Parliament.

Next Monday, Finance Minister Fleming must be in Washington for the annual meetings of the International Monetary Fund and the World Bank. Immediately after, on Friday 28, he flies to Mont Tremblant with the finance ministers of the other Commonwealth countries for the meeting which is meant to clear the way for the Conservatives' long-mooted Commonwealth conference on trade.

The Mont Tremblant agenda, admittedly, avoids difficult problems like trade diversion (**FP**, Aug. 24); but for that very reason the other Commonwealth governments have to be persuaded that it is worth holding a full-dress conference at all.

Trade Minister Churchill, who will attend the Mont Tremblant meeting with Mr. Fleming, has left for Europe on a sort of goodwill tour in aid of wheat sales. He will get back only on the day before the Commonwealth talks.

As soon as the full Commonwealth gathering is over, Peter Thorneycroft, Chancellor of the Exchequer, and Sir David Eccles, president of the Board of Trade, will drive to Ottawa for nearly two days of talks about Mr. Diefenbaker's suggestion for diverting a proportion of Canadian trade from U. S. to U. K.

Encounter Looms

This at the moment looms as the encounter which may most seriously expose Canada's lack of policy decisions.

The British ministers are deliberately giving every sign of taking Mr. Diefenbaker's proposal seriously. But they seem likely to arrive in the role of eager listeners, ready to consider Canadian proposals.

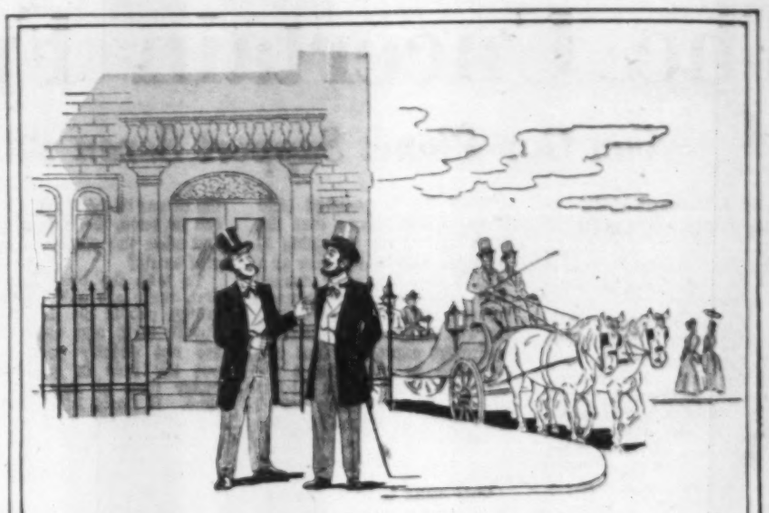
Yet—with Mr. Churchill in Europe and Mr. Fleming leaving for Washington at the weekend—nothing that could be called a serious proposal has yet taken shape.

A lot of paper has been expended on the attempt to find every possible way of giving effect to Mr. Diefenbaker's suggestion. Various ministers see prospects of pulling off various individual deals. But the decision has been left so late that it won't be easy to put up any convincing plan.

When the Anglo - Canadian meeting is over (on Thursday, Oct. 3), the same ministers — Fleming and Churchill, together with Agriculture Minister Harkness and the new External Affairs Secretary, Sidney Smith—have a three-day weekend before their first meeting with U. S. Cabinet members in Washington.

Parliament meets a week later; and on Oct. 17 Canada must have something to say to the annual GATT meeting. This will be unusually important. It has to consider European plans for a Customs Union. It should also be the occasion for Canada to give notice of any tariff bargains it wants to change.

It's a formidable schedule to undertake with so little firm decision about policy.



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New U.K. A-Power Station Brightens Uranium Outlook

By LEONARD BERTIN

The long-term outlook for Canadian uranium has been strengthened by a British decision to build a new and bigger atomic power station, using natural uranium as fuel.

With an output of 500 megawatts—sufficient for the domestic needs of half a million people—it will be the world's largest.

Its significance for the Canadian market lies in its effect on the struggle with the U. S. to gain the world's fuel reactor markets.

A great deal of interest will be focused on the new station by all "atom-minded" countries.

It will not mean any increase in the present U. K. contract for uranium.

Natural uranium, the only form Canadian plants can produce, contains only 0.7% (one part in 140) of active U235, the stuff atomic bombs are made of.

The rest is comparatively inert U238.

The process of "enriching" the natural uranium, so that it contains a higher percentage of U235, is a difficult and costly one requiring vast quantities of electricity.

The only countries with plant to do this at present are the U. S., U. K. and Russia.

But most of U. K.'s own supplies are required for atomic weapons or for research projects.

That means virtually all the enriched uranium available to the Western World must come from the U. S.

U. S. politicians and businessmen have for several years been trying to persuade Japan and the six Euratom countries (Germany, France, Italy, Holland, Belgium and Luxembourg) that reactors relying on enriched uranium offer a far better bet than do those using natural uranium as fuel.

If they succeeded in this policy Canada might be left high and dry with only limited markets for her natural uranium. The rest would have to be sold through the U. S.

Exotic Fuels

British nuclear engineers, on the other hand, have been trying to prove that exotic fuels like enriched uranium are unnecessary.

As evidence they point to the Calder Hall station in Cumberland which the Queen officially opened last November, and which had been working without incident for well over a year.

They also point to three further editions of Calder Hall now being constructed as part of the military program and to three much larger and more promising nuclear power stations (apart from the latest one) being built for various public electricity supply authorities.

The U. S., by contrast, has only one industrial atomic power station to point to in extolling the virtues of enriched fuel, the comparatively small one they are building at Shippingport, Pa.

This was due to be completed this fall and is behind schedule.

Without any working models to show, some of the U. S. businessmen, engineers and politicians have been resorting to "dirty play" in their attempt to persuade European potential users and the Japanese.

They have been asserting, for example, that the British natural uranium reactors are "not safe."

This, of course, is nonsense.

No country in the world has shown itself to have a better safety record than Britain, where not a single casualty has been sustained in the nuclear energy project to date as a result of an atomic process.

The new station, ordered by Central Electricity Authority, is to be started at once at Hinkley Point, Somerset, on the south bank of the Bristol Channel.

The constructors will be **English Electric Co., Babcock & Wilcox** and **Taylor Woodrow Construction.**

English Electric has been working for the order since last December.

Myles Elected DMAA Executive

R. Douglas Myles, manager, magazine circulation, **Maclean-Hunter Publishing Co.** has been elected vice-chairman (for Canadian members) of the Direct Mail Advertising Association. The election was made last week at the association's annual convention in Washington.

The DMAA represents an industry whose volume for the current year is estimated to be running at $1.6 billion.

The convention was the 40th that the association has held. The 42nd annual convention will be held in Montreal in September, 1959. Next year's convention will be in St. Louis, Mo.

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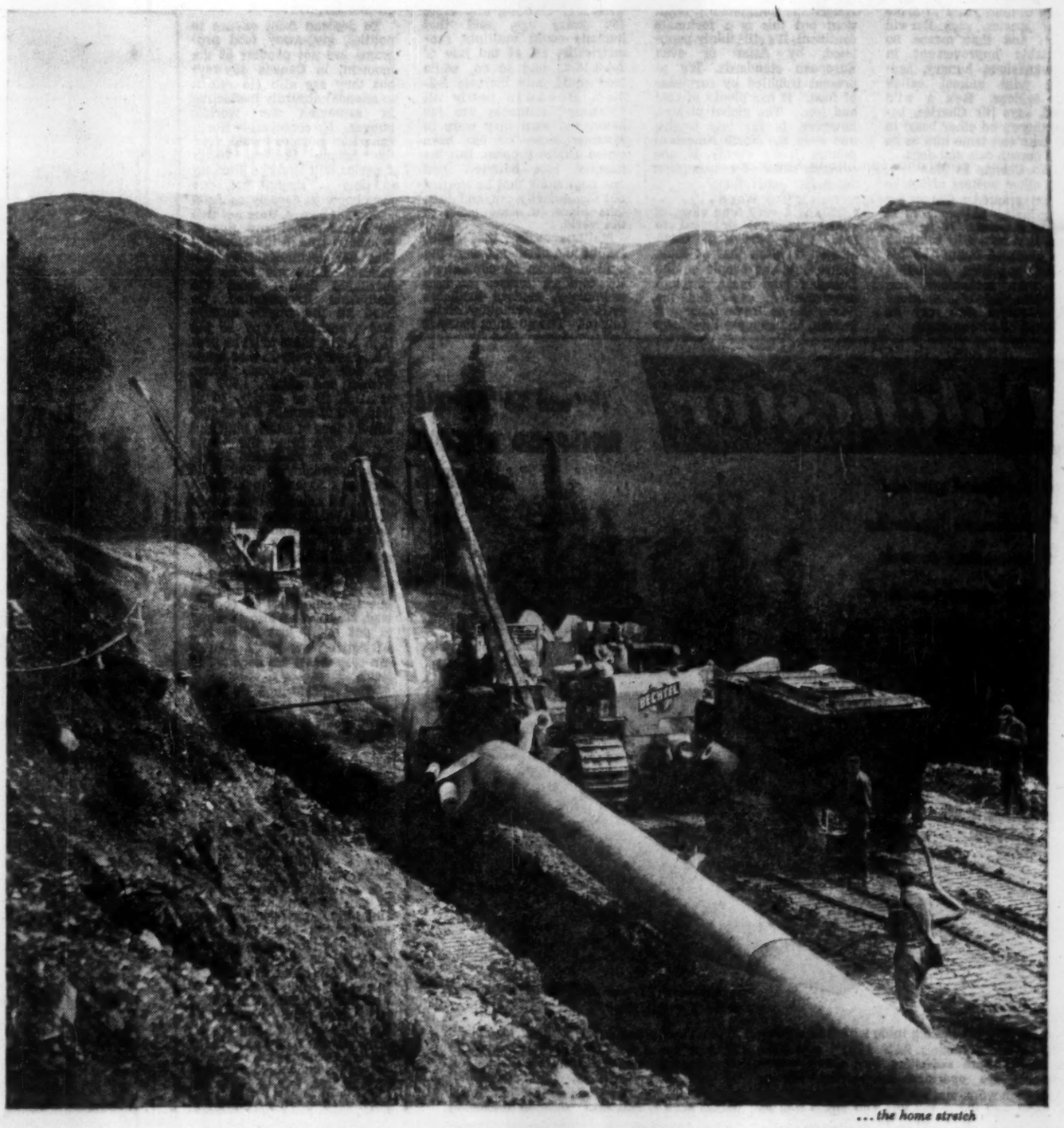

... the home stretch

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CHARTERED TRUST APPOINTMENT

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The appointment of Mr. Beatty C. Logan to the position of Trust Officer with Chartered Trust Company is announced by Mr. Henry E. Langford, Managing Director.

Mr. Logan is a graduate of McGill University where he majored in economics. He has had a wide background of experience in banking and merchandising before joining Chartered Trust.

MUNICIPALITY OF ST. EUGENE, Que., school commissioners have sold $110,000 5½% 15-year serial bonds to **Savard & Hart, Inc.**, at 96.42, indicating net cost of 6.471%. The 1972 maturity includes a balance of $13,000 to be renewed for five years. Proceeds are for construction of a boys' school.

Shipping Costs Will Jump If Union Plans Succeed

Labor muscles are straining toward bargaining and organizing triumphs which would lift costs of shipping in Canadian waters.

The emerging pattern:

● **Toronto longshoremen reportedly** want a 35c-40c hr. increase — almost 25%. This is a pace-setting contract for the handling of future Seaway traffic. It was in conciliation at mid-week.

● **It's rumored that Hal Banks' ambitious** Seafarers' International Union may begin a major drive to sign up crew-members of U. K.-registered vessels operating between Canadian ports.

● **Success in this project** would inevitably lead to demands for Canadian-style — far higher — wages on these ships.

● **This week there was strike** talk among union men representing crews of 16 **Canadian National** ships in coastal service in the Atlantic Provinces. Company estimated union demands would add 54% in labor costs.

"Higher costs will have to be passed on to the consumer," commented an observer of the Toronto longshoremen's dispute.

In another situation, where it's tough to pass on higher costs, SIU continues its stand for big increases aboard the Canadian National Steamships' eight-vessel deep-sea fleet, tied up by a strike since July.

This strike threatens the existence of Canadian deep-sea operation (**FP**, Aug. 10).

Details Unknown

Details of Canadian unions' ambitions on the docks and aboard ship aren't fully outlined yet.

But it's clear enough that extremely large wage increases are a focal point.

International Longshoremen's Association hasn't said publicly what it wants in Toronto.

But this is its first contract in that port. The outcome will be scanned closely by all Great Lakes ports. It's ILA's avowed ambition to sign up pier labor on the lakes in preparation for the busy trade expected upon completion of the St. Lawrence Seaway.

Therefore, ILA feels it must do well in Toronto.

Against this background, it reportedly wants to bring the wage rate in four Toronto stevedoring companies — now $1.62 — up to approximately the Montreal level, at least.

That would mean a jump of close to 25%.

It would lay ground-work for membership drives elsewhere — and for an eventual increase in Montreal, to stay ahead of Toronto.

A federal conciliation officer was sitting in on the case at mid-week. So far, apparently, it's been simply a matter of the union presenting demands, the companies making a counter-statement. This means there has been no real bargaining.

Seafarers' International Union eyes U. K.-registered ships in Canadian waters, following an important organizing victory last July.

At that time it was certified to represent the crew of the cable-laying vessel John W. MacKay.

The ship is under U. K. registry.

Special Features

The case has some special features. The ship belongs to **Commercial Cable Co.** of New York and is based in Halifax, with a Canadian crew.

But it flies the British flag. Up until now SIU has been unable to get a foot in that particular door.

Now some shipping men are predicting a major SIU drive to enlist crews on other British ships engaged in Canadian coastal trade.

Popular bet is the next targets will be **Constantine Canadian Service** and **Newfoundland-Great Lakes Steamships.** These are Canadian companies but they operate British ships between Halifax-Toronto-Montreal and Newfoundland.

These U. K. ships with their lower pay rates have long irritated the SIU. With Seaway trade now waiting in the wings there is a real sense of urgency in the union.

SIU boss Banks can look for considerable moral support from other unions in this matter, even though Banks himself is unpopular in many quarters.

As for the CN vessels in the Atlantic Provinces, tying them up by a strike would hit the area's economy.

The men — 413 involved — are members of the Brotherhood of Railway Employees and Other Transport Workers.

Wanted Increases

Union had asked for increases that totaled $688,200 more on the wage bill — $917,600 if extended to other seamen not covered by the agreement.

Company estimated this would amount to a 54% rise in labor costs.

Management offer was a flat 10% pay rise for each of the three groups affected. These are 46 engineer officers, 332 unlicenced personnel and 35 pursers and chief stewards.

A conciliation board finding handed down last week suggested a 13% rise for unlicenced personnel and 10% for the others.

At mid-week CNS, decided to accept the board's decision. The union, however, was not pleased. A strike vote was scheduled.

The situation presents an interesting dilemma. In the past the Brotherhood has been strongly antagonistic to Seafarers International Union and Hal Banks.

It has complained long and loud to Canadian Labor Congress about SIU raiding of its crews (**FP**, Oct. 27, 1956).

Yet the SIU stand against CNS for higher wages on deep-sea vessels is bound to favor the Brotherhood in putting up a battle over the Atlantic Provinces' ships.

Banks himself has been quiet in recent weeks. Most observers feel his own troubles are taking up most of his time.

His bid for Canadian citizenship is dragging on, now awaits results of a criminal libel action brought against him by a former SIU colleague..

Kitimat and Labor Unity Affected by Arvida Pact

MONTREAL (Staff) — This week's end to the four-month **Alcan** smelter strike at Arvida, Que., had national significance:

● It makes agreement more likely between the same company—Aluminum Co. of Canada — and Steelworkers Union at Kitimat, B.C. Lack of a decision at Arvida has tended to stall Kitimat talks.

● It can hardly be regarded as a triumph for the union at Arvida —a syndicate of the Canadian and Catholic Confederation of Labor. Thus it further harms the CCCL bargaining position in negotiations to affiliate with the huge Canadian Labor Congress.

● It underlined the question: In the long run, particularly if CCCL and CLC merge, isn't the powerful Steelworkers Union going to become the dominant voice in all Canadian aluminum labor? There are a lot of stumbling blocks, but it seems possible that steel eventually may get jurisdiction, or at least control, in Quebec aluminum.

Non-Stop Negotiation

Finish of the Arvida walkout came after a year of almost non-stop negotiation.

The 6,500-man tie-up cost workers about $1,600 each in lost income. The local economy naturally suffered.

There was a minimum of tension, no violence, the union allowed necessary servicing of equipment.

Settlement comes almost on the eve of CCCL's key policy convention.

CCCL negotiators really have little to show for their troubles that they couldn't have had months ago. Basic rates of pay go up to $1.76 per hour for the first of the three years that the contract will run, $1.85 the second and a further 10c average rise for the third. Total: 45c over three years.

The much-ballyhooed master contract for all Alcan employees in the province was not achieved —although the company undertook to make wage rates identical within two years at all four Quebec smelters.

It was obvious that Arvida will not be on the credit side of the ledger when CCCL syndicates meet to discuss whether to go on battling the power of Canadian Labor Congress, or give up and join the CLC labor unity bandwagon.

At Kitimat, Alcan and Steelworkers are in the conciliation board stage. Earlier reports said the union wanted an immediate 35c hr. increase, the company offered 45c over three years.

CANADIAN PACIFIC RAILWAY CO. between Aug. 15 and Sept. 4 issued 60 shares on conversion of collateral trust bonds due April 1, 1970; 174 shares on conversion of collateral bonds due Oct. 1, 1966; 30 shares on conversion of collateral bonds due Dec. 1, 1969; bringing number of common shares of the company issued and outstanding to 14,061,214.

Uranium Labor Will Continue Slugging Match

The fight for union supremacy among uranium workers continues to bubble dangerously:

—Mine-Mill Union is going to the Supreme Court of Ontario in an attempt to establish that Canada Labor Relations Board acted beyond its jurisdiction in certifying Steelworkers Union at **Can-Met** in the Blind River field; and in not considering an M-M application for Can-Met.

—Following failure of both Steelworkers and the Communist-influenced M-M to win **Northspan** (Blind River), a local union directly chartered by Canadian Labor Congress is making a try. The company thinks this union is just Steelworkers in disguise.

—Following conciliation board reports at **Faraday** and **Greyhawk** (both in the Bancroft field), there has been company agreement with M-M at the former giving an average wage boost of something more than 30c hr. over a two-year contract. A Greyhawk settlement may follow a similar pattern.

Meaning: There's a lot of hard slugging left in the uranium labor fight.

Both M-M and Steelworkers have solid representation in both Blind River and Bancroft fields. Both will go on trying to undermine membership support of the other.

Auto Production

	Wk. End. Sept. 14	To date 1957	To date 1956
Am. Motors:			
Rambler	....	1,792	....
Total cars	....	1,792	4,063*
Chrysler:			
Chrysler	....	3,587	5,042
Dodge	....	29,016	34,988
Plymouth	....	25,384	30,237
Total cars	....	58,420	71,665*
Dodge	....	3,025	4,962
Fargo	....	2,927	4,306
Total trucks	....	5,952	9,268
Cars, trucks	....	64,372	80,933
Ford:			
Edsel	318	1,375	
Ford	761	45,275	52,408
Mercury	242	7,984	6,251
Meteor	306	23,257	24,078
Monarch	71	7,350	6,693
Total cars	1,698	85,241	89,430
Ford	621	13,848	15,503
Mercury	204	5,373	6,287
Meteor divy.	12	642	496
Total trucks	837	19,863	22,286
Cars, trucks	2,535	105,104	111,716
GM:			
Buick	....	10,823	14,738
Chevrolet	....	59,340	48,619
Oldsmobile	....	10,864	7,968
Pontiac	....	36,915	32,974
Total cars	....	117,942	104,299
Chevrolet	7	12,228	17,039
GMC	9	8,065	12,077
Pontiac divy.	....	567	1,053
Total trucks	16	20,860	30,169
Cars, trucks	16	138,802	134,468
International:			
Trucks	159	9,328	11,456
Stude.-Packard:			
Stude., cars	....	4,094	6,772
All cars	1,698	267,489	276,229
All trucks	1,012	56,003	73,179
All vehicles	2,710	323,492	349,408
Previous wk.	2,718	.....	.....
Last year	2,311	.....	.....

*Includes Nash and Hudson for American Motors and Desoto for Chrysler.
Source: Canadian Automobile Chamber of Commerce.

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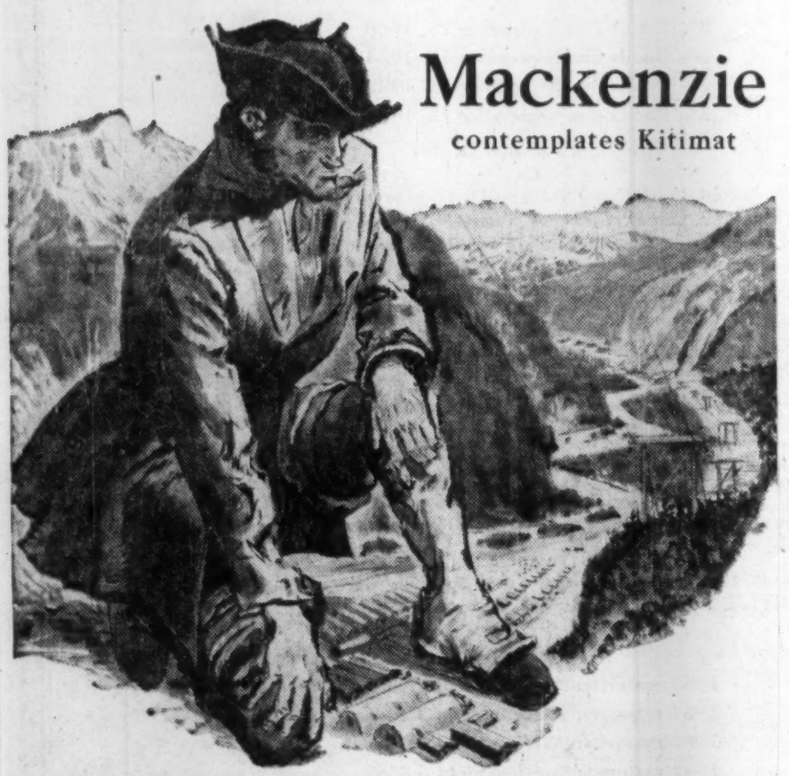

Mackenzie
contemplates Kitimat

When Mackenzie—first of our explorers to reach the Pacific overland—scaled the Rockies in search of a trade route west, little did he dream a giant aluminum refinery would one day rise in the mountain wilderness.

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What kind of man WAS Herbert Norman?

BY SIDNEY KATZ

For some months writer Katz has been searching for an answer to the question that has puzzled millions: Why did Herbert Norman take his own life? Now, this careful and penetrating study reveals the complex human being behind a great human tragedy.

In the September 28 issue — On sale September 19

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BY FENWICK LANSDOWNE

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Business Activity This Winter Depends on What Your Mood Is

OTTAWA (Staff) — The level of business activity in the coming winter may depend more than in recent years on the decisions of individual consumers.

Signs of a pick-up in housing may help to make up for an apparent lag in business investment.

But the consumer's decision whether to spend or save could be increasingly important.

The unfathomable course of consumer habits is highlighted in the DBS national accounts for the second quarter.

While personal incomes were still rising from quarter to quarter, it was at a slower pace; and in the April-June quarter the increase was not spent; it was saved.

Here are the key facts:—

Personal Income:

(A) Labor income: Still rising steadily quarter by quarter, but at a decreasing pace. Here are quarterly increases since the beginning of 1956:—

1956 I-II	3.5%
1956 II-III	3.2%
1956 III-IV	1.8%
1956 IV - 1957 I	1.6%
1957 I-II	1.5%

Cumulatively these successive increases amounted to an 8.4% rise from the second quarter of last year.

2. **Personal Spending:** (A) By value the seasonally-adjusted annual rate April-June was nearly $19.5 billions, almost level with Jan.-March: and 6.6% above the same period of 1956.

This is how it split:

Change From 1st Quarter	Change From 2nd Qtr., 1956
Durable Goods	
Minus 7.6%	Minus 4.4%
Non-Durable Goods	
No Change	Plus 7%
Services	
Plus 6.6%	Plus 7.7%

(B) By volume, consumer spending came to a little less in the second quarter than the first. Prices were up about 1%, though this was nearly all in the service industries.

Two main factors:—

—Higher rents (and imputed cost of home ownership).

—Higher wages, which make up so much of the cost of services.

Allowing for these higher charges, Canadians were really getting less service in the second quarter of 1957 than in the first.

Comparing the first half of 1957 with the same period of 1956, consumers spent 6.3% more money. This broke down into: About the same amount for durables (therefore less in volume); 6.6% more for non-durables, and 8% more for services.

With an over-all price rise of about 3% and an increase in population of about the same proportion, the average family must have got just about the same amount of goods and services as last year.

(B) Investment income: Individuals received about 2% more investment income in the second quarter than in the first (seasonally adjusted); but the increase came from interest and rent, not dividends. And total investment income was down nearly 3%.

Corporate profits (allowing for seasonal patterns) were very little changed from first to second quarter in total. Better profits in mining, chemicals.

Non-metallic minerals, food and beverages roughly offset declines, of which the chief were in iron and steel, non-ferrous metals and textiles.

But here is an unfamiliar fact, confirming some of the recent FP articles about earnings of foreign-controlled companies:—

Says DBS: "With the continued sharp advance of dividends paid abroad, corporate profits entering national income were estimated to be down 4%.

Compared with the second quarter of 1956, investment income was down about 2.5%.

3. **Personal Saving.** After taxes, personal income in the second quarter was up (over first quarter) by about the same proportion as before tax: 1.3%. But instead of going into consumption the extra "disposable income" went into savings.

How Savings Increased

Personal savings recovered from the low level of the first quarter; though they are still lower than last year, here are recent savings records; showing saving as a proportion of personal income after tax:—

1955 annual, 5.9%.
1956 annual, 7.1%.
1956 1st quarter, 7.0%.
1956 2nd quarter, 7.5%.
1956 3rd quarter, 6.9%.
1956 4th quarter, 7.2%.
1957 1st quarter, 5.3%.
1957 2nd quarter, 6.8%.

	Gross National Product	Personal Spending	Domestic Investment (ex. inventories)
	$ billion		
1955:			
First Quarter	24.4	16.5	4.9
Second Quarter	25.2	17.0	5.1
Third Quarter	26.0	17.3	5.4
Fourth Quarter	26.5	17.7	5.7
1956:			
First Quarter	27.1	17.9	6.1
Second Quarter	27.9	18.3	6.5
Third Quarter	28.7	18.8	6.8
Fourth Quarter	29.3	19.2	7.0
1957:			
First Quarter	29.4	19.5	7.0
Second Quarter	29.5	19.5	7.0

DBS Says Investment Plans Will Not Be Fulfilled '57

OTTAWA (Staff)—Can businesses and institutions fulfil the investment programs they planned for themselves this year?

The evidence of the newly-published national accounts for DBS is that they won't—not unless there is a very rapid spurt between now and the end of the year.

DBS estimates of the investment spending in the first half of this year show an increase of only 6% over the 1956 total achieved program.

The planned level of capital spending for 1957, according to the mid-year review of investment intentions by the trade and commerce department, was to be 12% above 1956.

To match even the plans reported at the beginning of this year, spending would need to be more than 8% above 1956.

On the first half-year's figures, DBS shows only one of the three big groups performing better than intentions; and it is the least expected one—housing.

On the first six months Canadians were spending 5% more on housing than the mid-year forecast.

Non-residential construction appears about 10% behind the plans reported at mid-year. And the third group—new machinery and equipment — was more than 5% behind.

Figures Tell

There's sure to be an argument about this. It's been going on already in the ranks of officialdom. So notice what the DBS figures claim to show.

1. They leave out direct spending by federal, provincial and municipal governments, because it's covered in the category of "government spending." This reduces the $8.8 billion total of the "survey of investment intentions" to $7.4 billion.

2. They estimate each quarter how much was actually spent, and then put it through the machine of "seasonal adjustment," which is the statistician's great pride and joy.

It essentially consists in calculating a seasonal pattern from a period of past years, and applying it to the current year.

Nowadays, it is done by a machine. A Univac electronic computer in Washington refines, while generally confirming, the old-fashioned work of the human brain.

If DBS gets its seasonal adjustment right, therefore, its seasonally-adjusted figures for the first six months should represent what the annual total will be provided there are no usual spurts or slowdowns.

3. Since these figures are all based on dollar totals, price changes could affect them seriously. But in the first half of this year DBS estimates that second quarter prices were barely 1% above first quarter levels for investment goods. And most of that was due to wages rather than material prices.

The DBS record over recent years in making these seasonally adjusted estimates has been remarkably good; and if you accept their figures, it looks as though business has reduced its plans for capital spending.

Those who put their faith in this series of figures say that the 1957 total might come near the intentions of the beginning of the year—8.4% above 1956—but can't possibly reach the mid-year survey plans—at 12% above last year.

Here are the figures:—

	Total	Housing	Other Const.	Mach. and Equipt.
	$ Millions			
Mid-year Forecast	8,776	1,358	4,472	2,953
Ditto, less Governments:	7,407	1,321	3,238	2,848
Actual spending: Jan.-June, at annual rate, seasn. adj.	7,008	1,396	2,918	2,694
Change from Forecast	—5.3%	+5%	—10%	—5%

Labor Outpaces Rising Costs

OTTAWA (Staff)—It isn't only employees in manufacturing industries who have kept their wages ahead of rising prices.

Total labor income, as shown in the new DBS national accounts for the April-June quarter, was 8.4% above the second quarter of 1956.

The labor force was 3.5% larger. So the average income of all Canadians drawing wages and salaries was nearly 5% higher.

Consumer prices over the second quarter averaged 3.6% higher.

So the average wage or salary earner, like the manufacturing employee, was better off in real terms by something over 1%.

But up till June this year, it is now revealed, he wasn't spending the extra: He was saving it.

Dalex Earns $1.08 In First-Half '57

Net profit of **Dalex Co.**, Toronto, was $53,575 or $1.08 per common share in the six months ended June 30, 1957. This exceeded the full year 1956 profit of $34,478.

Prospects for the balance of 1957 are "fairly good," said President D'Arcy McConvey, but it is not anticipated that earnings for the second half will be as great as in the first half, since the best sales season for Mercury outboard motors is in the Jan.-June period.

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The proper planning of capital structure, and the preparation and placing of various types of issues, is essential to sound management. An error in judgement may be expensive and troublesome, not only now, but for years to come.

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5% Bonds due September 15, 1964
5% Bonds due September 15, 1982
5% Bonds due September 15, 1992

To be dated September 15, 1957

Principal and semi-annual interest (March 15 and September 15) will be payable in lawful money of Canada in the cities of Victoria, Vancouver, Calgary, Edmonton, Regina, Winnipeg, Toronto, Montreal, Saint John, Halifax or St. John's at the holders' option. Bonds will be available in coupon form in the denomination of $1,000 and in fully registered form in the denominations of $1,000 or any multiple or multiples thereof. Coupon bonds and fully registered bonds will be interchangeable.

The bonds due September 15, 1960, 1982 and 1992 will be non-callable; the bonds due September 15, 1964 will be callable as a whole or in part by lot on September 15, 1962 or on any interest date thereafter on 30 days' prior notice at 100 and accrued interest.

Legal opinion: Messrs. Daly, Thistle, Judson & Harvey

In the opinion of counsel, these bonds will be direct obligations of the British Columbia Power Commission and will be unconditionally guaranteed as to principal and interest by the Province of British Columbia, the guarantee to be endorsed on each bond.

The net proceeds of the sale of these bonds are to be applied to the repayment of outstanding Short Term Notes of the Commission.

Commencing September 15, 1958, annual payments are to be made into Sinking Funds for the bonds due in 1982 and the bonds due in 1992 sufficient to retire such bonds at maturity.

Prices:

1960 maturity: 93.83 to yield 5.25%
1964 maturity: 98.55 to yield 5.25%
1982 maturity: 96.54 to yield 5.25%
1992 maturity: 96.01 to yield 5.25%

All prices plus accrued interest

We, as principals, offer these bonds subject to prior sale, if, as and when issued and accepted by us and subject to the approval of Counsel.

It is expected that interim bonds (later exchangeable for definitive bonds at any of the places of payment) or definitive bonds will be available for delivery on or about October 1, 1957.

A circular describing this issue is available upon request

A. E. Ames & Co. Limited
Dominion Securities Corpn. Limited
Wood, Gundy & Company Limited

Mills, Spence & Co. Limited
McLeod, Young, Weir & Company Limited
Bell, Gouinlock & Company, Limited
Odlum Brown Investments Ltd.

Royal Securities Corporation Limited
James Richardson & Sons
Anderson & Company Limited
J. L. Graham & Company Limited
Harris & Partners Limited
Collier, Norris & Quinlan Limited
Dawson, Hannaford Limited
Thomas B. Read Company Ltd.

Equitable Securities Canada Limited
Nesbitt, Thomson and Company, Limited
Pemberton Securities Limited
Greenshields & Co Inc
The Western City Company Limited

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W. C. Pitfield & Company Limited
Burns Bros. & Denton Limited
Bankers Bond Corporation Limited
R. A. Daly & Company Limited
Annett & Company Limited

ANNOUNCEMENT

SCHERING APPOINTMENT

WENDELL O. CORBETT

The appointment of Wendell O. Corbett as Plant Manager of the ethical drug establishment of Schering Corporation Limited at 8370 Labarre Street, Montreal, has been officially announced by the company. Mr. Corbett's responsibilities will include production, plant administration, warehousing and shipping. A native of Truro, N.S., Mr. Corbett attended Nova Scotia Agricultural College and also Macdonald College of McGill University. He holds the degree of B.Sc. and Master of Science in Chemistry and Microbiology. As a Petty Officer in the Royal Canadian Navy Volunteer Reserve, he served in the Pacific Theatre in World War II. Before joining the staff of Schering Corporation Limited, Mr. Corbett was associated with the chemistry laboratory of the Nova Scotia Department of Agriculture and with Merck & Co. Ltd. in Valleyfield, Que.

Note

By Vincent Egan

There's a growing expectation in the capital market that money will become much tighter before it eases.

Municipalities and corporate borrowers, who hesitated to commit themselves to a bond issue on, say, a 5¾% yield basis a few weeks ago, are now hurrying to close the borrowing on a 6% yield.

One reason is that last week's $700 million Government of Canada short-term issue served to establish a firm floor for the current high level of bond yields.

Another reason is that a rally in bond prices (and a decline in yields) could hardly get under way when new bond issues are coming along in such heavy volume as they are this fall.

* * *

City of Vancouver has issued $2,966,000 20-year 5¾% debentures, which are being offered by **Mills, Spence** to yield 5.85% . . . **General Motors Acceptance Corp. of Canada** is expected to borrow again shortly . . . The $5 million (U.S.) 5½%-7% debentures of **Petrofina S.A.** of Belgium were quickly oversubscribed.

* * *

Here are some private placements rumored to be under discussion: A $2-million issue of **Home Oil** 6½% secured sinking fund pipeline bonds, non-callable for 15 years, priced at par . . . A $2.4-million issue of **Brewers Warehousing Realty Co.** bonds, with a coupon of about 6¼% . . . Financing for construction of a $3.5-million office building in North Toronto, principal tenant of which will be **Trans-Canada Pipe Lines.**

* * *

Underwriters **McLeod, Young, Weir** and **Wood, Gundy** are offering $7.5 million **Canada Iron Foundries** 6¼% 20-year debentures at 99, to yield 6.34%.

* * *

To provide for more equity financing in 1958, **Bell Telephone Co.** will ask Parliament for permission to double its authorized capitalization of 20 million shares, par $25. There are now 17,876,352 shares outstanding, following recent one-for-seven rights offering.

* * *

Shareholders of **Hudson's Bay Co.** of record Sept. 3 are now receiving their rights to buy shares in **Hudson's Bay Oil & Gas Co.** at $11 per share, under an offering to expire Nov. 1. The two million shares of the oil and gas company are now wholly owned by Hudson's Bay Co. (25%) and **Continental Oil Co.** (75%).

* * *

New financing by **Interprovincial Building Credits Ltd.** will either be in a form that is partially convertible into common shares, or a rights offering. Shareholders have approved an increase in authorized capital from 300,000 to 400,000 npv common shares; there are now 207,840 outstanding.

* * *

If you're holding any **Traders Finance** 4% convertible sinking fund debentures, issued in 1950 to mature April 1, 1966, come out of hiding. Both the company and the underwriters, McLeod, Young, Weir, have been unable to locate the holders of the last $13,000 still outstanding.

Until Oct. 1, each $1,000 debenture may be converted into 48 common shares, which have a current market value of more than $1,600. But then the conversion privilege ends, and the debentures revert to their face value.

* * *

For newsprint stockholders: The Canadian newsprint industry's operating rate in July was 95.1%, lowest in a decade. The Newsprint Information Committee in New York said this week that it fears that a sharp decline in sales, which would add enormously to overhead, might halt expansion that will be needed to meet the higher demand expected in three or four years.

* * *

A $40-million borrowing by the Kingdom of Belgium is now under way in the U.S. It consists of a $10-million loan from the World Bank and a public offering of $30 million 5½% 15-year bonds at 97½ to yield 5.75%, by a group of 63 investment dealers. Bonds will not be callable until 1968.

* * *

A Canadian Stock Exchange seat is being offered at $14,000. Last sale of a CSE seat was May 17, at the same price.

IDB Loans Reach $71.2 Million

MONTREAL (Staff) — Loans and investments by Industrial Development Bank at Aug. 31, 1957 totaled almost $71.2 million, up 1.2% from $70.3 million a month earlier.

Disbursements in the current fiscal year to Aug. 31 totaled $30.3 million ($18.2 million a year earlier), while repayments were $11.3 million ($11.3 million). In August IDB's disbursements totaled $1,897,642, down from $2,049,515 in August, 1956, while repayments at $1,009,023 edged ahead of $909,347 in the corresponding month last year.

Here is the comparative statement of assets and liabilities:

Assets:	Aug. 31 1957 $	July 31 1957 $
Cash on hand & in bks.	100,848	37,243
Loans & invests.	71,187,478	70,330,869
Prop. held for sale	150,130	148,334
Guar. & u/o agree.	56,781	56,781
Other assets	1,250,407	1,176,002
Total	72,749,644	71,750,229
Liabilities:		
Cash paid-up	25,000,000	25,000,000
Reserve fund	8,706,469	8,706,469
Reserve for losses	900,000	900,000
Bonds & debs. o/s	35,450,000	34,300,000
Liab. under guar. & u/w agree.	56,781	56,781
Other liabilities	2,636,394	2,786,979
Total	72,749,644	71,750,229

KVP Co. Plans Stock Dividend

Shareholders of **KVP Co.**, Kalamazoo, Mich., of record October 1 are to receive a distribution of one new share for each 10 shares held.

Purpose is to transfer a portion of retained earnings into capital stock, said President Dwight L. Stocker.

Fractional shares are to be paid for in cash at the rate of $35 per share. Distribution will be made October 10.

For full report on KVP Co., see p. 70.

Uphold Registration Bar Against de Palma Firm

MONTREAL (Staff)—Application of **United Uranium Corp.** to the Superior Court for a writ of mandamus to compel the Quebec Securities Commission to reinstate its registration has been dismissed.

The company pleaded that section 13 of the Quebec Securities Act was ultra vires and unconstitutional. This section says decisions of the commission covering registrations cannot be appealed.

Here is the memorandum of the QSC concerning United Uranium and A. E. de Palma.

On December 13, 1955, the QSC cancelled the registration of United Uranium Corp. as security issuer. An investigation had revealed that Albert Edward de Palma had effective control of the company through **Transworld Mineral Investments, S.A.**, a Panamanian company, and was also the undisclosed owner of the registered brokerage house that was purchasing the shares of United Uranium.

"De Palma is known for his promotional activities in speculative securities and has been denied registration both in Canada and the U.S."

Mr. Justice Demers came to the conclusion the commission did not exceed its jurisdiction as according to section 24 of the act, the commission may grant, refuse, cancel or reinstate a registration at its discretion.

After stating that he had not therefore to appreciate the reasons for the cancellation, the judge added that, however, it seemed to him the commission was justified in its decision.

The judge declared the granting of registration under the Quebec Securities Act is the equivalent of granting a privilege or a permit to be allowed, withheld, suspended or cancelled at the entire discretion of the commission.

"The judge adds that having come to this conclusion, it is not necessary for the court to decide if section 13 of the act is ultra vires and illegal."

MUNICIPALITY OF CLAREMONT, Que., School Commissioners have sold $210,000 5½% 20-year serial bonds to **J. F. Simard & Cie.** at 96.25 indicating a net cost of 6.147%. The bonds may be called for redemption after Oct. 1, 1967. Proceeds are for enlargement of a convent.

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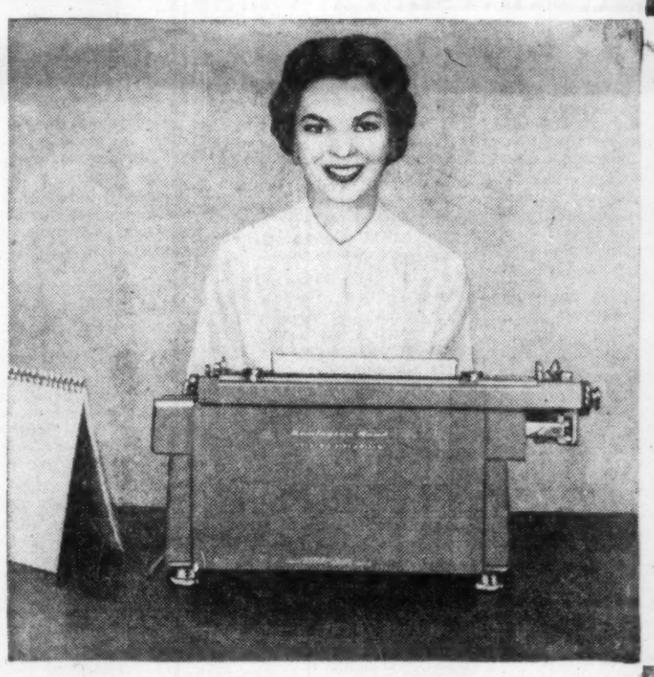

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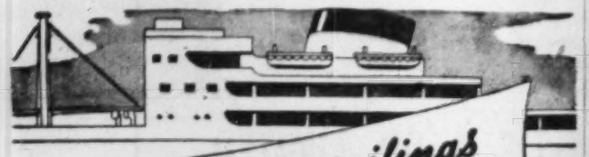

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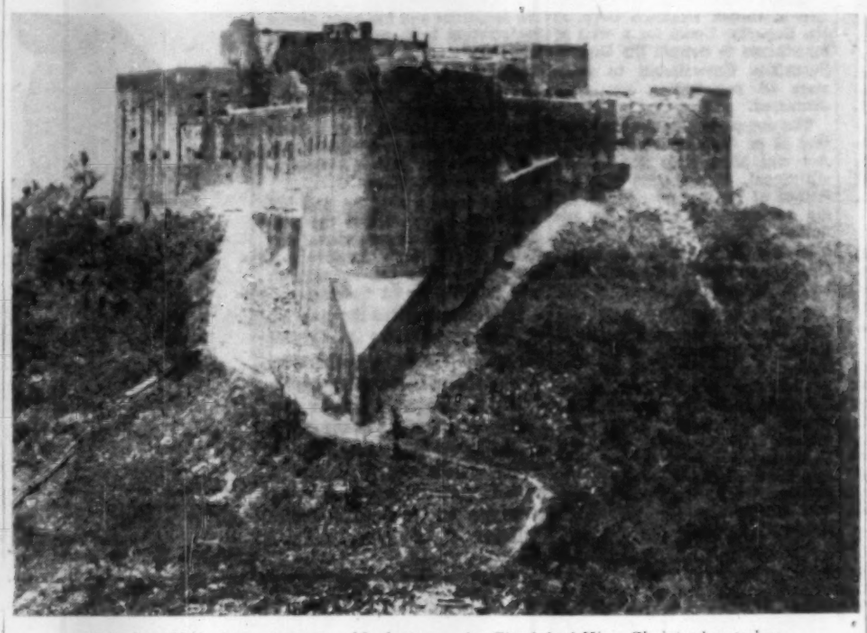

DESIGNED to be an impregnable fortress, the Citadel of King Christophe, today crouches on a hilltop in northern Haiti a decaying stone monument to an ex-slave who became a king. Christophe ruled Haiti in the early 1800s. The Citadel is a tourist "must."

Here's Why You'll Enjoy Your Vacation in Haiti

By BEATRICE RIDDELL

What do you know about Haiti —that mysterious land of voodoo drums, vivid color and startling contrasts?

A lot of surprises await you in this tiny negro republic with its strange mixture of African and European cultures. You must see it to appreciate its "different" atmosphere.

But do you know that Haiti, with all its primitivism is also a highly sophisticated resort? . It boasts most of the tourist facilities that have made neighboring Caribbean islands famous holiday retreats. It offers luxurious hotels, superb service, sun-drenched beaches, cool mountains.

Here are some of the reasons why you will enjoy a vacation in Haiti:

Location: Haiti occupies the western third (10,700 sq. miles) of the Island of Hispaniola between Cuba and Puerto Rico. It is just a little more than seven hours by **Pan American's** direct flight from New York. This airline also offers stopovers at Jamaica, Dominican Republic and Cuba. Return fare from Toronto is $287. A 30-day excursion (with stopover privileges) is $258.

Climate: Days are sunny and dry; nights cool all year long.

Government: Haiti has been a republic since 1804, when the negro population overthrew their French rulers. Continuing political unrest led to U. S. intervention from 1915 to 1934. The overthrow of President Paul Magloire in December, 1956, resulted in riots and a minor revolution. But travel officials say this has not affected the tourists.

While a military group is at present in control, three candidates are now taking part in a general election campaign, with voting Sept. 22. In contrast to recent disturbances, the campaign so far has been quiet.

Accommodation: There are several luxury hotels (most of them with swimming pools) that compare favorably with those of other Caribbean resorts. There are also modest, but attractive pensions.

Top Hotels

Leading hotels in Port-au-Prince are **Riviera, Simbie Palace, International Club** and **Beau Rivage.**

At nearby Petionville, a delightful mountain retreat 15 miles from the capital, hotels include **Creole, Montana, Choucoune, El Rancho, Ibo, Lele** and **Beau Site.**

At Cap Haitien, gateway to Haiti's most famous historic sites: **Hostellerie du Roy Christophe, Mont Joli** and **Hotel Beck.**

Rates range from $10 to $25 per person per day with meals at leading hotels. Good second class hostelries charge $5 to $10, sometimes including bath.

Food: Haitian food is a gourmet's delight. At the larger hotels, "good plain cooking" is available. But unless you have ulcers try the spicy native fare with its overtones of French cookery.

Rice with beans or peas is the basis for many Haitian dishes. Seafood is outstanding, particularly pickled oysters, shrimp and avocado, flaming lobster. Veal with cashew nut sauce and pressed duck are specialties.

Desserts are superb, but very sweet. Ice creams made of locally grown fruits, coconut cream (very rich) and a delicious pudding of sweet potatoes combined with sugar and syrup are favorites. Orange soufflé is as light as a cloud and crepe suzettes rival any you will taste in Paris.

Renowned Coffee

Tropical fruits grow in great abundance. And Haitian coffee, usually served very strong and sweet, is world-famous.

Hotels serve excellent fare. Also try restaurants such as **Aux Cosaques** and **Le Picardie** in Petionville, The mountain-top **Le Perchoir,** with its spectacular view of Port-au-Prince is delightful.

Night life: There are a number of night clubs in and around Port-au-Prince, but the **Casino International** and the **Cabane Choucoune** at Petionville are the ones most frequented by the international set. Hotels also offer excellent evening entertainment.

Shopping: Since import duties are low, Port-au-Prince is virtually a free port. Here you may buy French perfumes, English woolens, Irish linen at extremely low prices.

Local handcrafts, also cheap, include attractive mahogany bowls and ornaments, brass carvings, painted fabrics, sisal products. And Haitian paintings (primitive but highly original) are attracting art collectors from North America and Europe.

Browse through the quaint boutiques and markets as well as the smart shops. Visit the **Iron Market** (Haitian Flee Market). Specializing in mahogany and native wares are **Caribcraft, Cardozo's, Meinberg's, Deslandes'** and **Fisher's. La Belle Creole** — famous department store—offers everything from handcrafts to luxury imported goods.

Sightseeing: In Port-au-Prince there are many sights. Visit the beautiful Palais National, dazzling white against a backdrop of mountains and save some time for the Museum of Ethnology with its fine exhibit of Indian and African relics. The Centre d'Art and Foyer des Arts Plastiques contain excellent collections of Haitian national art.

Must Sights

At Cap Haitien in the north, two of the Caribbean's most incredible tourist attractions are found. They are the Citadel and Palace of Sans Souci—both built by colorful King Henri Christophe, second native ruler of the country.

There are lovely beaches along the coast, many of them quite deserted. And in the interior, the traveller finds grottoes, waterfalls, and lakes. The Pine Forest, 60 miles east of Port-au-Prince and the hunters' paradise at Lake Saumatre are well worth visiting.

Transportation: Highways are excellent between major centres. American-type cars may be hired for $15 to $20 a day. For travel in the interior, jeeps are recommended. An efficient airline operates 45-minute flights between Port-au-Prince and Cap Haitien.

Language: French is the official language, but the Parisian variety is seldom heard. Most people speak Creole, a patois of French, Spanish, English and African. But English is usually understood in large centres.

Travel documents: A passport is necessary, but a visa is not required for a visit of less than 30 days. A tourist card (costing $1) is available on arrival.

Thousands Will Watch The Queen

In a few weeks' time, Ottawa and neighboring Hull will be decked with flags and bunting to welcome the Queen and the Duke of Edinburgh. Four days—Oct. 12 to Oct. 16 — will be crammed with colorful ceremonies and gay festivities.

They will be seen first hand by thousands of Canadians lucky enough to be in the vicinity, and by millions more on their TV sets.

On Oct. 14 (Thanksgiving Day) the capital will be the scene of pageantry never witnessed before in Canada. For the first time in history, a Canadian parliament will be opened by a reigning monarch.

Hotels in Ottawa and Hull will be packed to overflowing with Members of Parliament and their wives, officials, press and sightseers. And hotels in neighboring towns and cities as far away as Brockville will probably be booked to capacity.

Canadians will also follow the royal pair south of the border where they will pay an official visit to the Jamestown Festival. For the past five months, the aristocratic old state of Virginia has been celebrating its early beginnings which link the history of the English-speaking peoples.

For many years Canadians have been frequent visitors in the area. And this year's festivities (which end Nov. 30) have attracted an exceptionally large crop of Canadian tourists.

At Jamestown, where English settlers landed 350 years ago, the Queen and Prince will visit the $1.5-million Festival Park and other exhibits. At nearby Lake Matoak, they will attend an outdoor production of Paul Green's outstanding drama "The Founders" written especially for the anniversary celebrations.

The royal pair will stay at Williamsburg, where the early colony moved in 1699. Here they will visit the major attractions in this famous town where ancient buildings have been restored or reconstructed and where 18th century elegance reigns.

And vacationers from as far away as Ocean City and Rehoboth Beach will journey down to see a historic event in a historic setting.

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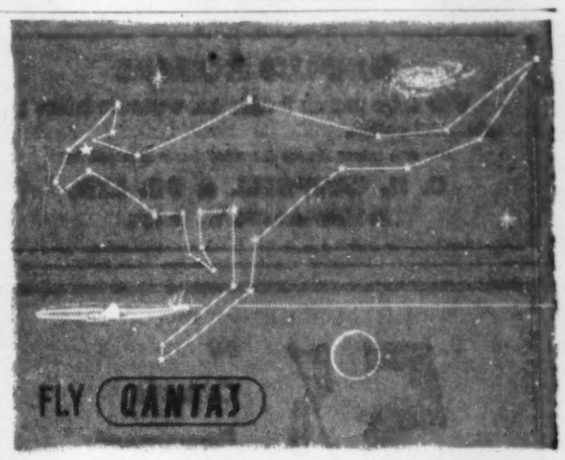

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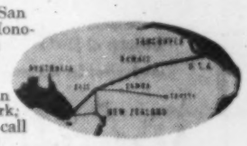

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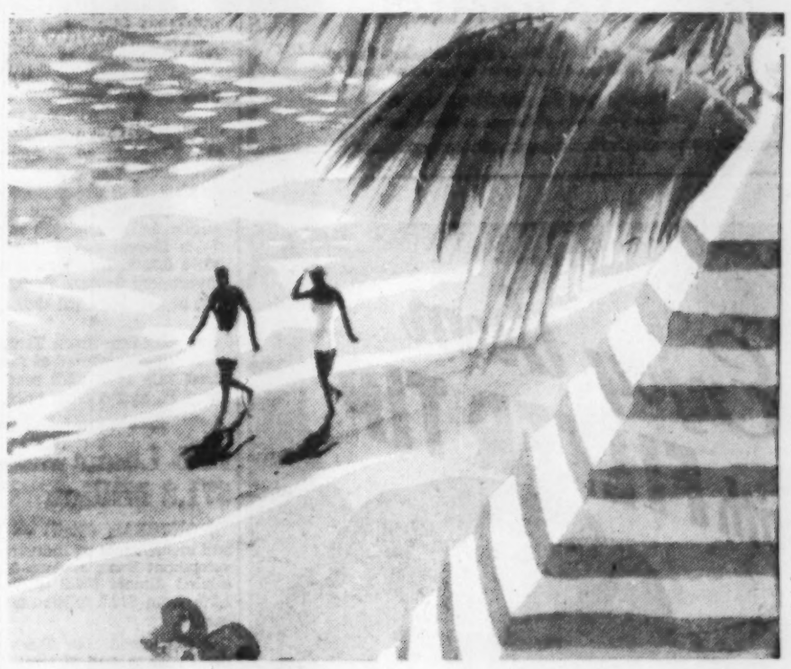

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ANNOUNCEMENT

DIRECTOR
MUTUAL LIFE OF CANADA

WALTER A. BEAN, C.B.E.

Walter A. Bean, C.B.E., Deputy General Manager of The Waterloo Trust and Savings Company, has been elected a Director of The Mutual Life Assurance Company of Canada.

Bruce Hutchison writes about:

Back To Canada

By BRUCE HUTCHISON

As usual this autumn, I shall not waste my vacation on frivolous pleasures nor add my money to our U.S. trade deficit.

No, I shall use these precious weeks to improve my mind. I shall make another intensive study of Canada.

For the most part it will be conducted on horseback, or with a fishing rod, in a remote region which no human eye has seen for the last 20 years.

My instructor in this post graduate work, at the highest level, far up the Rockies, will be Professor James Riviere, of Pincher Creek, whose lectures over a camp fire are distinguished by a knowledge of Canada unknown to governments, books or newspapers.

Professor Riviere's seminars are profound, penetrating and exhausting. They leave the student limp, stiff but crammed with a new erudition.

A man may be grossly ignorant of Canada as he starts up the trail. He will be educated when, and if, he returns.

I mean this quite seriously. If you wish to know Canada there simply is no substitute for the first-hand inspection, not only of its land but of its people.

And neither can be seen, or at any rate understood, from the window of the airplane, train or automobile; neither can be discovered in the printed word.

Now, I would be the last to disparage the printed word but it isn't everything.

Spent Months Figuring Out Confusion

In the last 11 months, for example, I have been, and doubtless the reader has been conscientiously following the affairs of Canada in print, trying to understand the confusions of politics and assessing, as best one can, the prospects of business.

A layman thus lost in the factual labyrinth might well conclude that the nation was in a parlous state.

There is no majority in Parliament. The real policies of a minority government have yet to be revealed, perhaps even to itself.

Inflation grips the economy. Earnest men are shouting in the market place about the management of money without knowing, in most cases, what money is.

Factually the nation is advancing into its golden age or rushing toward disaster, according to one's own interpretation of the facts.

But all these interpretations, though refined to the last decimal point and set out in undeniable statistics, ignore the greatest fact of all. That fact is Canada — the land and the people.

The land is not what it looks from a window and certainly not what it appears to be in any official bluebook The people are not what they seem in the headlines. Both land and people are better than their public imagines.

If they were not, if society were only the clash of power represented by politics, the clash of economic interests reported in the newspapers, the confusion and uncertainty suggested by the most accurate statistics—why then we might as well despair.

Convey Only The Nation's Surface

Actually, though politicians by and large are scrupulously honest men, newspapers reliable and statistics true, they convey nothing but the surface of the nation.

To be sure, you couldn't understand the nation without the symbols of politics, the daily news and the statistics but it is equally certain that you cannot understand it from these facts alone.

You can understand it in its three full dimensions only when you see it or, more accurately, feel it and immerse yourself in it.

The same thing is true of all other parts, but take that part of Canada which I happen to know best.

An easterner, reading about the woods of British Columbia, where this is being written, may imagine from the latest news that all the local inhabitants are a little mad.

The recent news tells us, quite truthfully, that the great British Columbia lumber industry has been systematically pricing itself out of its market, that profits have drastically slumped and a good many loggers thrown out of work.

Yet in the woods around here men are going steadily about their business, everybody is busy, chain saws are shrieking, the trees are falling and, better still, the young trees are growing up again.

Both men's labors of destruction and nature's labors of reconstruction must be seen to be believed.

Even if men's affairs here were as mad as they sometimes appear, statistically and economically, the basic fact would remain.

The forest is still here, is growing quite oblivious to human folly and will always be here for men's use—a primary Canadian fact.

You May Think All Farmers Are Broke

Or take the prairie and foothill country of Alberta where I shall shortly enter Professor Riviere's autumn class. You might suppose from politics and statistics that all the farmers of the prairies were broke, desperate and helpless under the misfortune of several abundant crops.

Or you might imagine that if a man is not a ruined farmer he must be an oil tycoon living in a private airplane, on a diet of champagne and ticker tape.

But go into any little prairie town and you will find business proceeding as usual though it is having its troubles, the people as sane and happy as anyone can be in this age.

Go to High River and you will find that great lady of Alberta, Mrs. Hughena McCorquodale, recording day by day, with mischievous twinkle, the human events of her town in The Times, a record of Canada as it really is.

Go westward into the foothills and you will not find the economic problem of agriculture as presented so alarmingly in the statistics but only the spectacle of ripening grain, bulging barns and fat cattle.

Whenever I am distressed by the daily news, whenever I read about the farm crisis and the worried men in Ottawa, I remember that Burt Sheppard, Dave Diebel and other cattle ranchers are not statistics.

They may be deeply concerned about the problems of agriculture in their spare time, they read about it and talk about it now and then but it is a peripheral fact only.

The basic fact is the land, its fertility, the wealth that will be there long after the present temporary occupants are forgotten.

Canadians Retain Quiet Contentment

Individually the Canadian folk retain a stubborn sanity and a quiet contentment.

It is only collectively, and on the surface of their lives, only in such symbols as politics, economics and statistics, that they appear as problems and produce what we too lightly call crises.

Unquestionably there is frequent crisis in politics, in business and throughout our bomb-drunk civilization. For the ordinary Canadian there is no crisis.

Historians long hence may conclude that in an age of this sort, when civilization dangled on a chewed string held by a few maniacs, men lived in fear and fury.

Actually Canadians at any rate are living more satisfactorily than they ever lived before.

If this is the most obvious fact of our times, you cannot truly grasp it in the big cities, in Ottawa, in the newspapers or bluebooks. You must see it for yourself where men are not a collective mass or a statistical table.

Above all, you must see the land, the source of everything, the sure guarantor of the nation's future, the thing that makes us what we are, if possible on foot or horseback and better still under the instruction of a scholar like Professor Riviere.

He never read a hansard, bluebook or statistic in his life but he can read Canada and lecture on it in a language now almost out of print.

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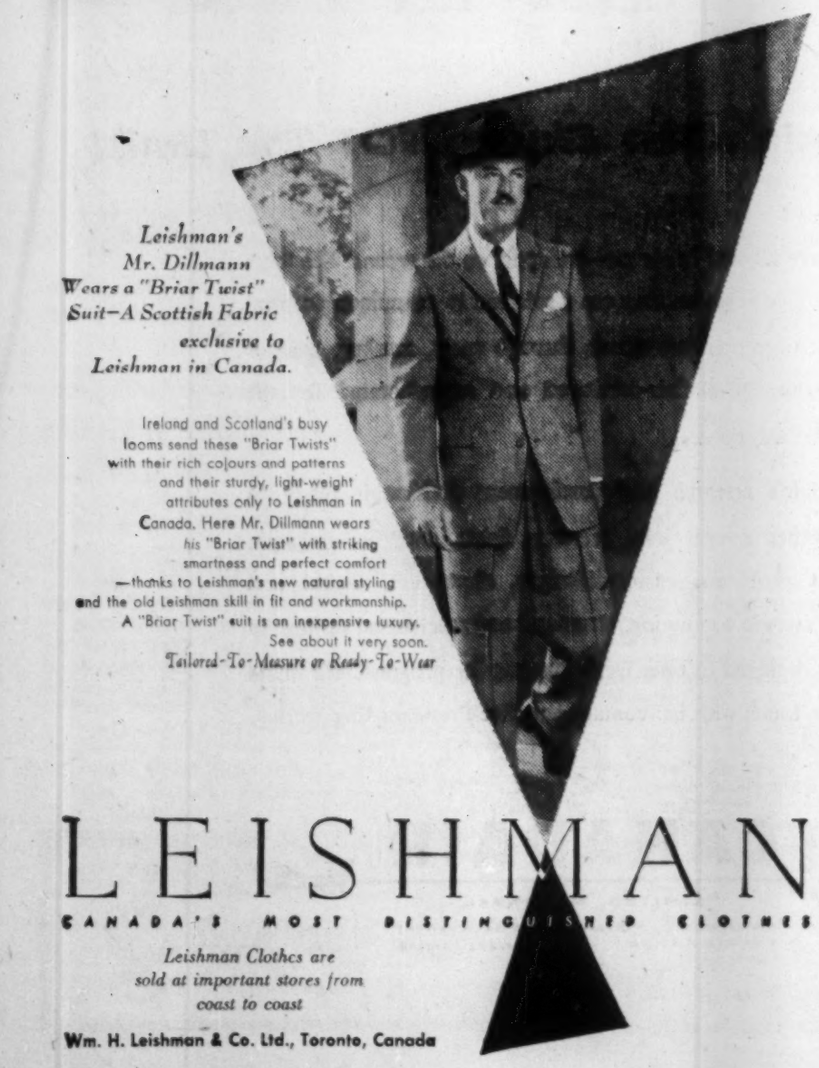

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LABOR ROUNDUP By JACK McARTHUR

Midland's Industrial Oddity

Long Strike Could Have No Official Ending

Marring the pleasant, tree-studded scenery near Midland, Ont., are the ugly concrete remnants of what started out years ago to be an automobile factory.

A promoter persuaded the good people of the quiet Georgian Bay area to put up a big bundle of cash for the proposed plant. The local backers lost their money; no automobiles are made in Midland.

It may be that a skepticism born of their shattering experience with the would-be automaker prevents Midlanders from becoming excited about a more recent industrial phenomenon — the 10-month-old strike of one of their largest industries, **Canadian Name Plate Co.**

This was the walkout that was billed as Canada's **Kohler.** Kohler is the Wisconsin company which has been strikebound for 3½ years, causing an endless series of labor board cases, much violence, turning brother against brother, neighbor against neighbor.

At Name Plate there were minor incidents of violence, months ago. Some bitterness exists, but surprisingly little.

The strike isn't even a topic for much conversation, any more. Very occasionally, it will touch off a beer parlor scuffle.

The plant has a beautiful location beside the bay. It appears to be operating with a full work force (around 190) and at a brisk pace, despite the pickets who patrol lazily beyond company gates.

Name Plate is planning to expand into production of figure skate blades, in addition to the name plates and chrome work it does for the appliance and auto industries.

On a nice day the handful of pickets will be playing horseshoes, occasionally shouting at trucks going in and out. (Teamsters Union, incidentally, is not observing United Auto Workers picket lines.)

The real issue when the strike began was union security, not wages or fringe benefits.

UAW regards Name Plate as a "runaway plant." It moved from Toronto in late 1954. UAW signed up a large group of its workers, got certification and started bargaining.

But talks collapsed when the company resisted the union demand for either the Rand Formula (every worker paying into the union treasury) or the full union shop (every worker joining the union).

That started the strike. The company decided to keep operating. For months, there has been an argument between union and company over whether the strike is really having any effect on production.

"We know they're being hurt," says the union.

Apparently about 80 strikers have never returned to work. Many of these are working elsewhere.

Latest development in what could become a strike without any official ending:

Ontario Labor Relations Board has rejected a months-old union request for the right to prosecute the company for allegedly failing to bargain in good faith.

Question: What would happen if the union backed down, agreed to sign the type of contract previously offered by the company; and the company then refused, wishing to protect the jobs of the people ("scabs" by union definition) it has hired to replace the strikers?

Would the company then be in danger of prosecution for refusal to bargain?

Apparently there is no sure answer.

There was some initial anxiety that the strike would discourage small and medium-sized industry from coming to the area. Recent years have seen a vigorous drive to get industry in order to balance the economy of farming, shipping and holidaying.

Some of this worry has died away.

It would flare again, of course, if trouble blossomed from the seeds of resentment which still exist.

But there has been a tomb-like silence for months now, on the strike-front.

A far bigger issue has been whether dry Midland should have beer outlets. (The "wets" apparently have won this fight.)

* * *

B. C. Laborers To Get $2 Hr.

The unrelenting uptrend in construction labor costs is featured this week by another huge leap higher.

In wage-pace-setting British Columbia, 3,000 common laborers in construction in Greater Vancouver have signed a contract which will bump their pay from $1.66 hr. to $2 over two years.

In addition, a 7c hr. contribution to the health and welfare plan will mean that the scheme will be wholly financed by employers.

Said an elated Carl Berg, head of the Hod Carriers and Laborers Union in the west: "Never did I imagine that a contract of this sort would ever be signed . . ."

Laborers' rates across Canada in 1956 ranged from 80c in Saint John to $1.66.

The west coast deal follows a series of record or near-record wage increases all through Canadian construction (**FP**, July 27, September 14). B. C., particularly, has shown some huge increases —43c for carpenters, for example.

* * *

How Solid Is Hoffa Backing?

It's obvious there's now a growing opposition within the 1.5-million-member Teamsters Union to tough Jimmy Hoffa's bid for the presidency.

Whether it will reach sufficient proportions by Sept. 30 to defeat Hoffa at the Miami Beach convention is questionable.

For one thing, Hoffa's Detroit hierarchy has solid control of a very large number of Teamsters locals in Canada, the eastern, southern and central states. Presumably—if Hoffa thinks there is real danger of failing to win the presidency now owned by the discredited Dave Beck—these locals will send all the delegates they can to support their boss.

Trying to spur on the opposition, the AFL-CIO has left no doubt that Hoffa is an "undesirable."

AFL-CIO President George Meany has as much as said Teamsters will be expelled if Hoffa is chosen.

This could turn into a real problem for Canadian Labor Congress, which can often sidestep inter-union fights in the U. S.

If Hoffa's presence as op officer will make Teamsters a "corrupt" union in the eyes of U. S. labor leaders, it surely must do the same in Canada. That's because the Hoffa organization controls most Canadian Teamsters.

The result: Any CLC sidestepping in this one will look like a retreat—and, no doubt, will get a lot of bad publicity.

* * *

Labor Briefs

The big anti-Hoffa Teamsters local in Canada—Truck Drivers 938 in Toronto—reportedly will not be allowed to vote at the international convention because of non-payment of per capita tax to the parent union.

* * *

Negotiations between **Ontario Hydro** and Hydro Employees Union look about ready to come to a peaceful conclusion. Union negotiators are recommending membership acceptance of a deal which includes 3½% wage boost, larger company share of hospitalization costs.

* * *

First of its kind held in Canada by United Auto Workers, an international UAW white collar workers' conference was held in Toronto last week end. About 80 office-worker delegates from Canada and U. S. attended. The meeting underlines stepped-up UAW activity among office workers.

New Truck Guide Compiled for Ont.

Ontario's new Ship-by-Truck Directory lists more than 3,000 Canadian and U. S. communities with names of licensed transport-owners, in its 282 pages.

Compiled by Automotive Transport Association of Ontario, it gives licence details for more than 1,000 carriers authorized by the Ontario government to serve the public, including general freight carriers and operators of specialized services — horse van operators and boat transporters, for example.

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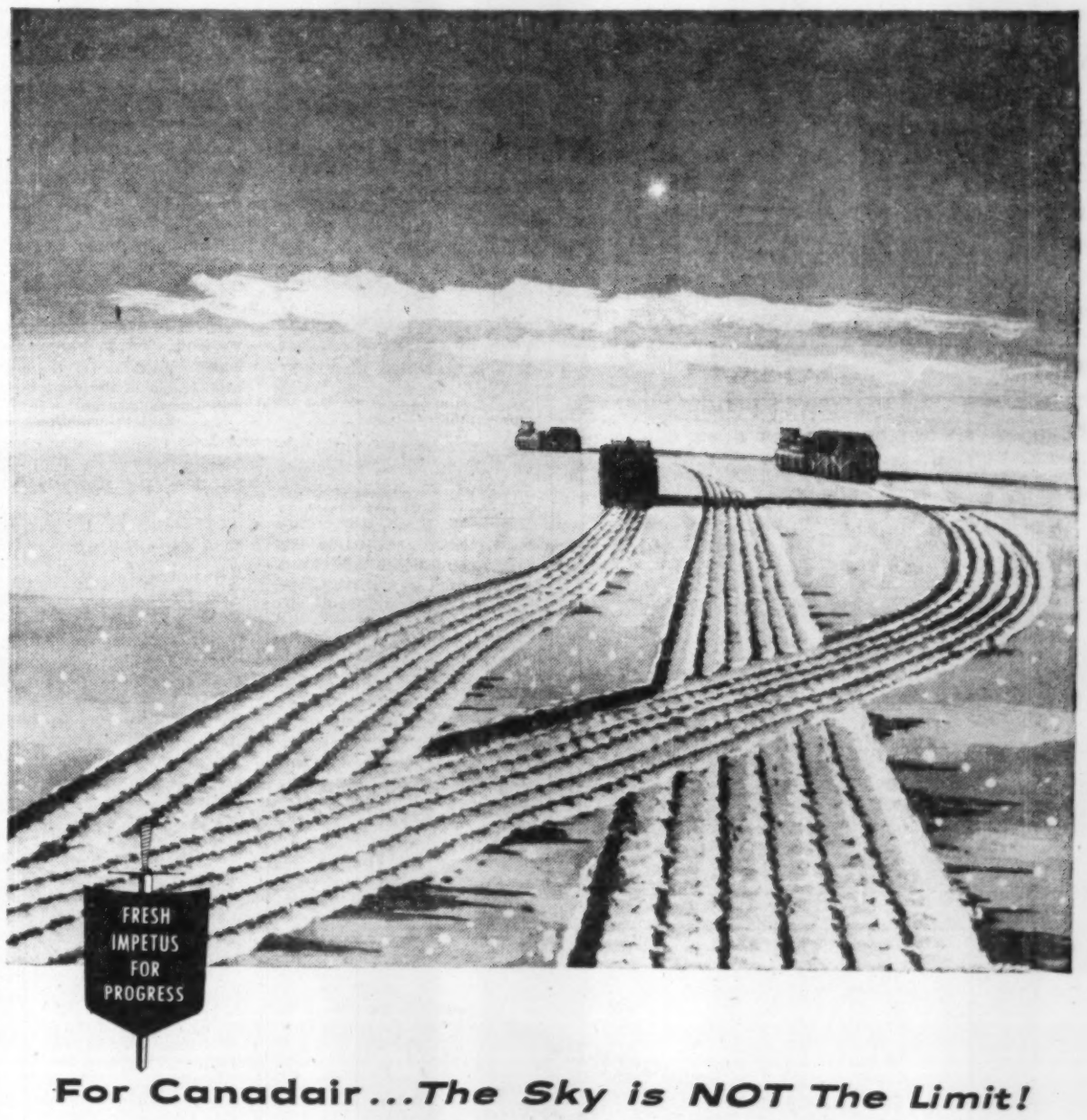

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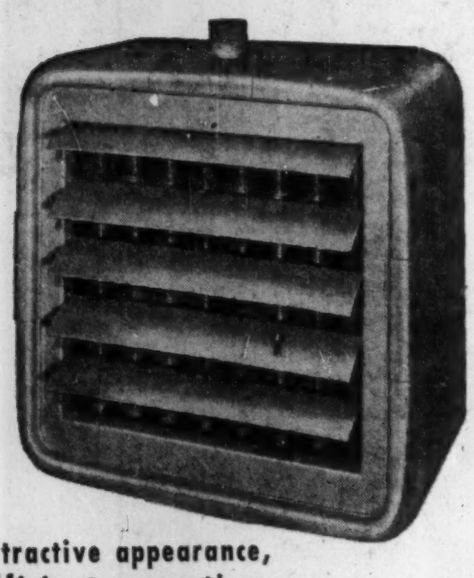
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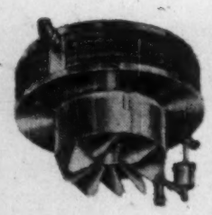
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CANADIAN BRITISH ALUMINIUM

Gleaming Baie Comeau Mill To Pour First Ingots Soon

By FP STAFF WRITER

BAIE COMEAU, Que.—The big push is on to finish the first unit of the **Canadian British Aluminium Co.** smelter and to get production going well before the end of this year.

And this thriving community on the North Shore of the St. Lawrence is achieving an old ambition: Get greater industrial diversification.

There is lots more power in the area and the local hope is that the CBA move will be the forerunner of other important developments.

Right now work is being finished on the first pot line. The gleaming metal building stretches about 2,000 ft. and its capacity will be around 20,000 tons a year from 84 pots.

Work has already started on another 20,000-ton line parallel to the first.

Land Cleared

The land has been cleared for the third and fourth stages as a subsequent development.

To start with, CBA will get its semi-processed material (alumina) from **Aluminum Co. of Canada** at Arvida and from European continental sources.

Canadian British Aluminium was born out of a marriage between **British Aluminium** (60%) and **Quebec North Shore Paper Co.** (40%).

Further strengthening the marriage, Canadian British Aluminium bought a 40% interest in **Manicouagan Power**, the power subsidiary of Quebec North Shore.

The British parent is a world pioneer in aluminum and is the sole producer of aluminum ingot in the U. K.

It has bauxite, smelting and sales operations in many parts of the world.

The economic geography of the aluminum man's world is very different to that of the layman looking at a map.

Moving a ton of freight from Western Europe to Baie Comeau costs the same as moving it the mere 350 miles from Montreal.

There is so much present and potential low cost electric power along this North Shore, the British Aluminium people found this site more attractive than any alternatives offered in other parts of the world.

Currently, in the construction phase, about 3,400 people are employed on the aluminum project. When production settles down at Stage One, employment will be about 600.

While work on the smelter goes on, there is a rush program to build about 300 private homes for the permanent staff.

Most of the permanent workers will be recruited from the North and South Shores, with some specialists from other parts of Canada.

Top Brass

A few of the top brass at the aluminum project came from Britain and are expected to remain.

CBA plant manager is Alan Wiley, a stalwart upholder of Scotland's merits in this predominantly French-Canadian community.

Mr. Wiley is devoted to the kilt for Sabbath services, cocktail parties and other dress occasions.

His chief engineer is George Street, a dark, amiable and hard-going Briton.

As experienced and canny shoppers in world markets, CBA bought its equipment in varied places.

Steel and cement came from U. K.

A giant conveyor running from the new wharves nearly a mile up the side of the hill to the smelter was designed and fabricated in West Germany.

The interior cranes which have special and very ticklish jobs to do in an aluminum smelter are a unique creation from France.

Casting machines came from Switzerland and the giant carbon plant was created in New York. (For one ton of aluminum you need half a ton of carbon.)

General contractors for the smelter are a joint venture group, **Anglin-Atlas.**

Total cost of Stage One and Stage Two, now definitely scheduled, will be around $75 million.

Simultaneous with work in the aluminum project, a major expansion to power generating capacity is going on nearby.

Over $14 million is being spent to add three new generators, 50,000 hp each. That will take care of Stage One and part of Stage Two at the smelter.

Here at Baie Comeau, the St. Lawrence is considered closed for navigation three months of the year. But stock piling at the smelter will permit continuous operation.

And probably it won't be long before Baie Comeau will have year-round river operations.

World research into ice control and modern aids to navigation suggest that for this part of the St. Lawrence the future may be very different to the past.

Canada Scientists Study Earthquake Nevada A-Blast

Scientists in at least three Canadian laboratories hope to gain important new data about the interior of the earth from the nuclear blast scheduled to take place late this week deep down in a Nevada mountain.

Their operations are being coordinated by Dr. J. H. Hodgson, chief seismologist of the Dominion Observatory, Ottawa.

As scientists in Nevada count down the final seconds to the blast, scheduled for 1 p.m. on the first suitable day, other research workers in countries all over the globe will start up the motors of seismographs and other high-speed recording instruments in an effort to pick up resulting earth tremors.

In Canada "listening posts" have been established at the Dominion Observatory, Ottawa, and also in the geophysics laboratory of the University of Toronto and in the department of geophysics of the University of Western Ontario, London.

To keep down "background noise," Toronto police have promised to keep the main street in front of the university clear of traffic during the listening period. Prof. J. Tuzo Wilson of the University told **FP** the shock would take about six minutes to reach Toronto.

Echoes of one sort or another might continue to arrive for a further 17 minutes. Scientists cannot watch the waves being picked up.

The seismograph operates in a darkened room. Records are made photographically and have to be developed afterwards.

In Ottawa the listening post is directed by Dr. P. M. Willmore of the Dominion Observatory.

In Toronto Dr. Alec Mair, a graduate research student with a long background in seismology, is in charge under Prof. Wilson.

In London, Ont., Prof. R. J. Uffen, head of the department of geophysics, is in charge.

Full Information

In order that scientists all over the world shall be able to take full advantage of the test, U. S. Atomic Energy Commission officials have circulated full information beforehand of their intentions, of the exact timing and position of the device.

AEC officials said the nuclear device would have an energy release equivalent to 10,000 tons of TNT and would be detonated 800 ft. deep in a tunnel. The kick produced in this way would be several thousand times greater than if it were set off on a steel tower or while suspended from a balloon.

Prof. K. E. Bullen, head of the department of applied mathematics at the University of Sydney, Australia, originally suggested the experiment.

Russian scientists attending 11th general assembly of the International Union of Geodesy and Geophysics in Toronto two weeks ago turned down the idea en bloc.

Prof. V. V. Beloussov, one of their senior delegates, said "all" scientists in Russia were against further nuclear tests of any sort because of the danger to health.

He said they had petitioned Moscow to stop them.

As far as earthquake research was concerned, Beloussov claimed, equally good results could be obtained by the use of several hundred tons of ordinary high explosive. Both Soviet and Western scientists have used this method.

No Contamination

In fact, it is most unlikely that any radioactive contamination will reach the atmosphere from the explosion.

Seismologists say the resulting shock waves will penetrate the 1,800-mile thick "mantel" of plastic rock that surrounds the earth's outer core.

They will then richochet back to the surface again along various paths.

The time that it takes shock waves to reach varius points will give important clues to what lies underneath.

In general, the denser the material, the faster the shock waves travel through it.

What can scientists learn from such tests?

Prof. Bullen reckons that eventually sufficient data may be amassed about the interior of the earth to enable seismologists to warn populations of impending earthquakes in time for them to escape from their homes.

But the collection of this information may take some scores of years. It would still be worth while.

The San Francisco earthquake of 1906 killed 700 and caused $400 million of property damage. Much of this could have been avoided.

Atlantic Premiers Meet Next Week

MONTREAL (Staff)—Premiers of the four Atlantic provinces and their aides and an estimated 150 Atlantic region industry, business, education and labor leaders are scheduled to meet in Charlottetown, P.E.I., Sept. 23 and 24 to attend separate conferences.

While members of the Atlantic Provinces Economic Council will be attending APEC's annual meeting, the four premiers will be holding one of their recently instituted premiers' conferences at which they are afforded an opportunity to discuss common problems. Some of the meetings of the two groups will be joint sessions.

Emphasis at the APEC meeting will be on transportation problems and difficulties of the Atlantic region. Also to be discussed are APEC's agricultural, power, tourist and trade programs which will be examined from the point of view of work already done and future plans.

Special speakers will include A. R. Williams, executive assistant to the president of **A. V. Roe Canada Ltd.**, and George Hees, Federal Minister of Transport.

Foreign Exchange

Noon Value in Canada
Week Ended Sept. 13, 1957

	U.S.$	U.K.
Mon.	95 11/32	2.65 7/16
Tues.	95 16/32	2.65 13/16
Wed	95 27/32	2.65 12/16
Thurs.	96 2/32	2.67 5/16
Fri.	96 7/32	2.67 12/16
Average	95 127/160	2.66 33/80

U.S. rate reported by Bank of Canada.
U.K. bid rate reported by Toronto-Dominion Bank.

Newfoundland Issue Offered

MONTREAL (Staff) — An offering of $3 million Province of Newfoundland 5½% sinking fund debentures, non-callable, maturing Oct. 1, 1977, is being made by **Bell, Gouinlock & Co., McLeod, Young, Weir & Co.**, and **Mills, Spence & Co.** Price is 97½ to yield 5.71%.

Purpose is to reimburse the consolidated revenue fund for expenditures made and to be made for construction of educational institutions, Trans-Canada Highway and other roads and bridges.

Net direct and indirect funded debt this year is $53,560,000, or $128 per capita.

REFUNDING AND NEW ISSUE

$6,000,000

Province of New Brunswick

5% Sinking Fund Debentures

Five-year 5% Debentures to mature October 1, 1962
Twenty-year 5% Debentures to mature October 1, 1977

To be dated October 1, 1957

Principal and half-yearly interest (April 1 and October 1) payable in lawful money of Canada in the Cities of Halifax, Charlottetown, Saint John, Moncton, Fredericton, Montreal, Toronto, Winnipeg, Regina, Calgary or Vancouver at the option of the holder. The five-year Debentures due October 1, 1962 will not be redeemable before maturity, and the twenty-year Debentures due October 1, 1977 will be redeemable in whole or in part on thirty days' notice on October 1, 1975, or on any date thereafter at 100 and accrued interest. Coupon Debentures in the denominations of $500, $1,000, $25,000 and $100,000, with provision for registration as to principal.

The authorizing Order-in-Council will provide for an annual sinking fund during the currency of these Debentures of a sum equal to 2% of the principal amount thereof from time to time outstanding at the commencement of the current fiscal year of the Province in respect of $200,000 aggregate principal amount issued for the purposes of The New Brunswick Electric Power Commission and 3% in respect of $5,800,000 aggregate principal amount issued for other purposes.

Legal Opinion: Messrs. Daly, Thistle, Judson & Harvey

In the opinion of Counsel, these Debentures will be legal, valid and binding direct and general obligations of the Province of New Brunswick and will be chargeable, principal and interest, on The Consolidated Revenue Fund of New Brunswick.

Descriptive circular available on request.

PRICES:

1962 maturity: 98.00 and accrued interest to yield 5.45%
1977 maturity: 95.75 and accrued interest to yield 5.35%

We, as principals, offer these Debentures if, as and when issued and accepted by us, subject to the approval of Counsel. Subscriptions will be received subject to rejection or allotment in whole or in part and the right is reserved to close the subscription books at any time without notice. It is expected that Definitive Debentures will be ready for delivery on or about October 9th, 1957.

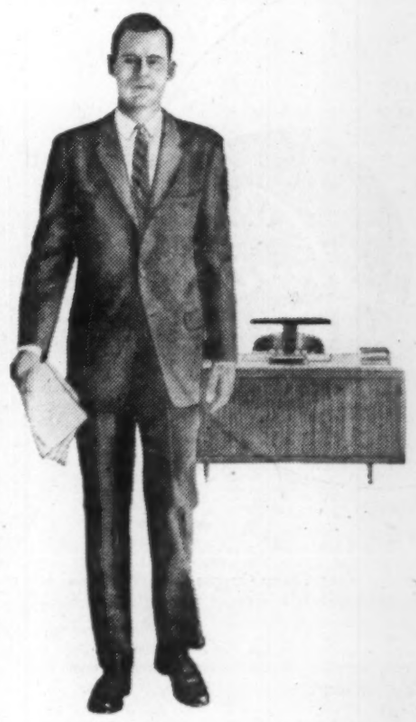
Dominion Securities Corpn. Limited
Wood, Gundy & Company Limited
A. E. Ames & Co. Limited
Eastern Securities Company Limited

Bell, Gouinlock & Company, Limited
McLeod, Young, Weir & Company Limited
Mills, Spence & Co., Limited
Cochran, Murray & Co., Limited
F. J. Brennan & Company Limited

Nesbitt, Thomson and Company, Limited
Greenshields & Co Inc
Gairdner & Company Limited
L. G. Beaubien & Co., Limited
James Richardson & Sons
Burns Bros. & Denton, Limited
Stanbury & Company Limited
Equitable Securities Canada Limited

W. C. Pitfield & Company, Limited

September, 1957

For the man of Ambition as well as the man of Position


The IBM "Executive" Electric...
the one and only typewriter with "proportional spacing"
to give you the world's most distinguished letters!

The IBM "Executive" Electric is the only choice for every man who wants his letters to build personal and company prestige. Only the "Executive" gives you "proportional spacing" to make your letters stand out from all others. Your IBM representative will be glad to prepare a sample of this distinctive typing on your own letterhead. Call him about the "Executive" . . . the finest model in Canada's favorite line of electric typewriters.
Other typewriters cram all letters into the same space, like this— iiiii ooooo wwww mmmm
IBM "proportional spacing" allows each letter its own natural space— iiiii ooooo wwwww mmmmm
Available in 7 handsome colors
IBM ELECTRIC TYPEWRITERS —OUTSELL ALL OTHER ELECTRICS COMBINED!
ELECTRIC TYPEWRITERS • DATA PROCESSING • TIME EQUIPMENT

How to Save Dollars

Material Handling Shows Way To Cut the Costs in Industry

Material handling — a technology that is saving millions of dollars a year for industries in every field across Canada — comes into the national spotlight at the end of this month.

That's when one of the largest industrial shows ever staged in this country will be held in Montreal's Show Mart, sponsored by the Montreal chapter of the American Material Handling Society.

More than 70 manufacturers and dealers of material handling equipment are taking part. Over 20 U. S. and Canadian specialists will discuss problems and new advances at a conference in conjunction with the show.

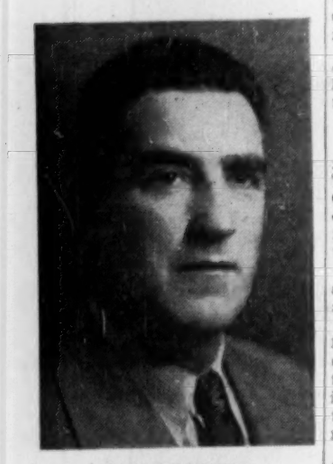
What's the most likely way to cut costs in your business?

That's a question which the representatives of more than 70 leading firms in the material handling equipment field will be ready to discuss with more than normal vigor when one of the biggest exhibitions of its kind opens in Montreal's Show Mart at the end of this month.

Sponsored by the Montreal Chapter of the American Material Handling Society, the five-day Canadian material handling show and conference which opens on Sept. 30 will be one of the largest of its kind ever held in this country.

Equipment for handling every kind of raw or processed material will be on view indoors and outdoors, and latest developments in a variety of fields will be demonstrated.

General chairman Emile Dupre, who also headed the committee for the successful regional mater-



D. A. GILLESPIE
first Canadian President of national governing body of AMHS

ial handling exhibition sponsored by the Montreal Chapter three years ago, says:

"Cost analysis in many types of business has shown that staying up-to-date with material handling techniques and equipment can reap rich returns in reduced costs. In some industries, material handling is the largest single component of labor costs. Cases are on record of plants where 80% of all labor costs are used up in handling materials."

After World War II, studies in the U. S. showed that 30% of the manufacturing cost was the minimum charge to handling materials — in most plants it was at least 50%.

And in recent years, developments in the field have come along rapidly as management started to concentrate on improved methods of handling materials and manufacturers strained to meet such demands.

Efficiency Counts

It is not only in large organizations that material handling is an important cost factor.

Inefficiency in material handling can mean a competitive disadvantage for any business where handling of materials is a regular part of the operations — manufacturing, processing, assembling, storing, shipping or receiving.

It's claimed that as well as cutting production costs, the industrial science of material handling is also saving industry thousands of dollars in construction costs. It aims to get maximum use of existing space.

More than one firm has saved itself the price of a new plant or warehouse through greater utilization of existing space.

In the last few years many firms through increased efficiency in material handling have been able to control the rise in their unit costs even though they have experienced substantial increases in material and labor costs.

And it's a business which has been spurred by increasing competition in home and foreign markets. It is at least a partial answer to Canada's problem in various fields of meeting competition from countries with lower labor costs. It can represent a major step toward greater productivity.

Know The Equipment

Here's what specialists in the field advise for the prospective purchaser:

—To get the full benefit of modern material handling methods and equipment, the capacities and limitations of many types of equipment must be known. Selection of the right equipment is the key to successful application of modern material handling methods.

N. R. Crump, president of the CPR will open the show and conference and the latter will run for three days from Oct. 1 to Oct. 3 in morning sessions, with a chartered bus service from the meetings at the Windsor Hotel to the Show Mart.

During the first conference session, four panel discussions will be held. On the second day, group discussions will be conducted on the previous day's topics. The third conference session will be taken up by the Canadian Material Handling Clinic.

Sixteen specific material handling topics will be discussed by specialists in their respective fields.

All that's new in trucks, pallets, vacuum lifts and the wide variety of other items in material handling equipment and its accessories will be on view at the show.

And there will be many lessons offered on specific examples of how developments in the industry are saving dollars and time.

Twice As Fast

Canadian Lift Truck Co., Montreal, for instance, claims that its Towmotors at the new Etobicoke, Ont., plant of **Hinde & Dauche Co.** of Canada handle operations 100% faster than a hand-cart system would.

Production facilities at the plant are scientifically planned for speedy movement of materials.

Corrugated boxes flow from five different kinds of finishing operations and 17 finishing stations. The units must be moved immediately to temporary storage, then picked up and sent to carriers.

Average load of the fork lift trucks is about 1,000 lb. and they are stacked as high as 12 ft., transported a maximum distance of about 500 ft.

Use of such trucks has also eliminated need for a supplementary conveyor belt to feed baled boxes from hand carts to packers inside carriers.

Examples of equipment used by **Canada Steamship Lines Ltd.** in its new package freighter S.S. Fort Henry will also be on view. CSL claims that the vessel is the largest, fastest and most modern package freight ship on the Great Lakes.

It is equipped with specially-designed cargo elevators and other features for the fast and efficient handling of freight by fork lift pallet methods. To service its cargo space, it has four

EMILE DUPRE
chairman, Exposition, Planning and Organization Committee.

high speed hydraulic elevators of a new type.

Then in another field, there will be an example of a fork lift truck which is claimed to be making major savings in handling at a forgings plant.

This Mercury model is equipped with a rotating fork carriage. Formerly at the plant, thousands of small and medium-sized forgings were handled daily by wheelbarrow.

Now the truck with attachment is stated to carry at least five times the load, make the trip faster and safer.

Some of the most rugged and powerful materials handling equipment ever built will be featured by **Canadian Fairbanks-Morse Co.**

This display will include the Silent Hoist Krane Kar equipped with hydraulic swing boom crane; Lamson Mobilift industrial trucks ranging from 3,000 lb. to 5,000 lb. capacity on 24 in. or 30 in. load centres; American Safeway portable elevating trucks, pedal-operated, especially suited for lowering, staking and positioning operations which would normally require several men; the Yale Load King electric hoist, capacities ranging from ¼ ton to 1½ tons and fitted with wire rope cable or chain.

International Equipment Co. will be emphasizing the claims of wheel tractors in the material handling field.

The ever-increasing cost of material handling, together with the rapidly expanding need for space requirements, has prompted wheel tractor manufacturers to look at the material handling field as an obvious sales outlet for wheel tractors.

The tractor coupled with a rear mounted fork attachment capable of handling weights up to 4,000 lb., is claimed to provide a very economically priced unit for certain material-handling applications.

The rear-mounted lift, which places the load onto the large diameter tires is an answer to handling palletized or cubed material on uneven surface operating areas.

In the agricultural field, units of this type are being rapidly accepted for use for the loading of fruit and vegetables onto trucks in the orchard or field.

For Lumber, Building

The lumber industry presents many requirements — at mill site, to handle logs at the skid-way, lumber in the storage areas, or down through the wholesale and retail dealer levels.

Building material suppliers and construction contractors have found units particularly adapted to their field. In some cases, wheel tractor fork lifts have been towed at highway speeds behind delivery trucks, to facilitate unloading problems.

Another interesting application for this equipment is its use by the aircraft industry for freight handling, particularly at northern airfields with their heavy snow fall conditions. Here, it's stated, the large diameter tractor tire is ideally suited to "roll through" considerable depths of snow, and thus reduce the necessity of the high cost of rapid removal of snow from unloading areas.

In this field will be the Bull Moose truck with various capacities of thousands of pounds which are produced in Vancouver by **Canadian Mobile Co.** and in eastern Canada by International Equipment.

There will also be the Crane-mobile with capacities of up to 10 tons which is also being made here by the two companies and is being exported to the U. S.

Then there's the **International**

(Continued on page 17)

she buys the brand that's magazine-advertised

If she didn't thoroughly enjoy shopping, today's customer could almost do all her buying by telephone. Why? Because she buys brand name merchandise. She buys well-known brands because she—

- **Buys with Trust—spends confidently on known quality**
- **Shops with Ease — spends efficiently on proven value**
- **Enjoys more choice — spends shrewdly amongst widest selections**
- **Gets the "Latest"—spends smartly on up-to-date products**

Why does our customer rely on nationally-known brands? Because, more often than not, she's seen them advertised in her favourite magazines.

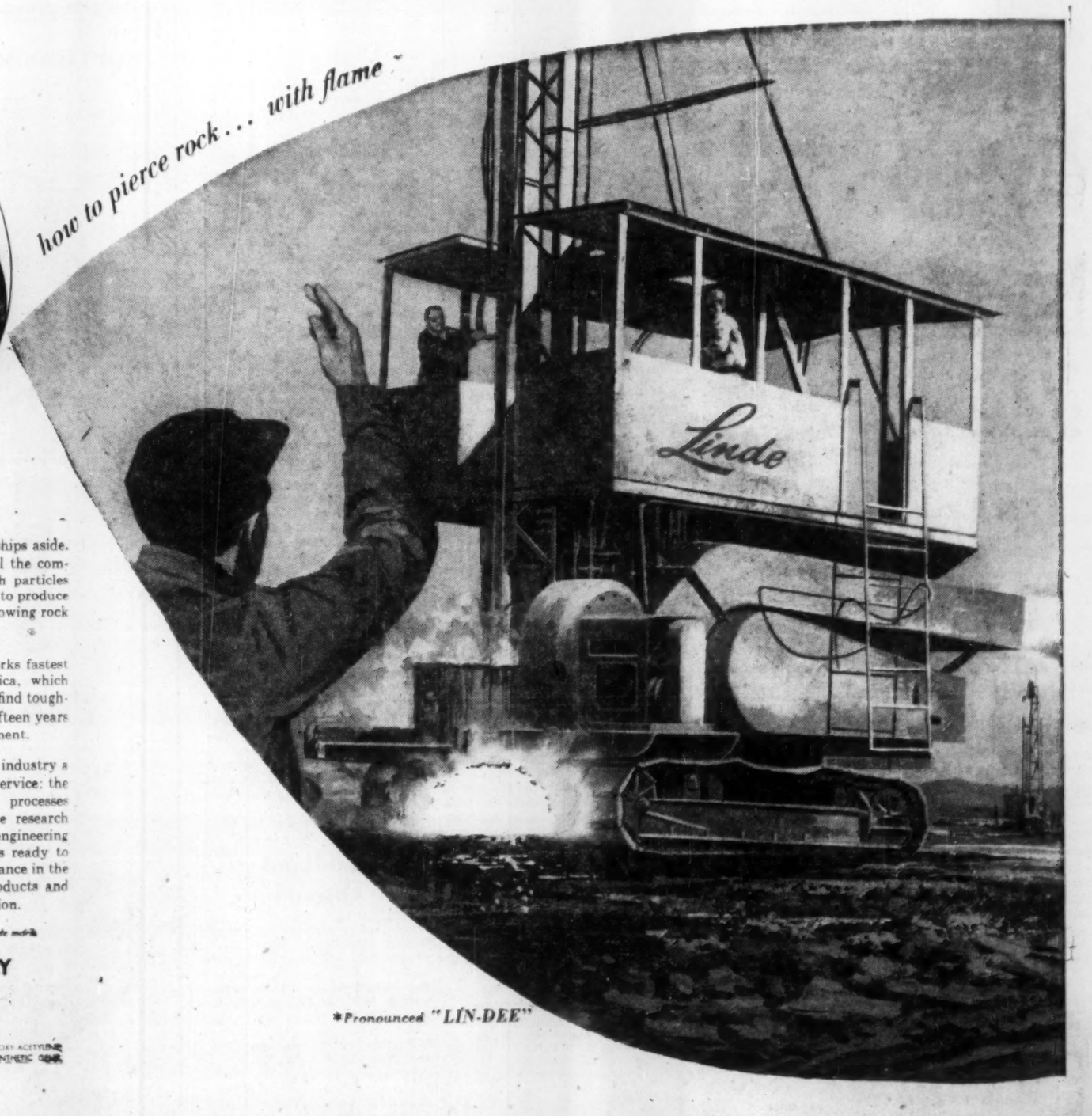
Magazines take their full share in making advertised brands as familiar and as trustworthy as old friends. To-day's shopper reads magazines — including the advertisements — in her leisure time — the time when she gets her strongest and most lasting impression. When she shops, she remembers what she's read, and buys confidently. These are the reasons why we of the agency association give magazines the fullest consideration in the planning of any client's advertising.

THE CANADIAN ASSOCIATION OF ADVERTISING AGENCIES
CAAA member agencies place 90% of the total national billing in Canadian media

SERVING INDUSTRY THROUGH 40 YEARS' EXPERIENCE, A MULTI-MILLION-DOLLAR RESEARCH PROGRAM AND A TEAM OF COMPETENT PROCESS ENGINEERS AND TECHNICIANS

Linde*

how to pierce rock . . . with flame



Take light fuel oil and let it burn in an atmosphere of oxygen, inside a small combustion chamber shaped like that of a modern liquid fuel rocket. From the nozzle will emerge a stream of white-hot gas, travelling faster than sound. Directed against certain types of rock, this jet flame will pierce a blasting hole up to ten times faster than any other method.

This, briefly, is the principle behind "LINDE" Jet-Piercing Machines, one of which was used by United Waterways Constructors Limited to complete, on schedule, an important St. Lawrence Seaway contract near Melocheville, Quebec.

The operating sequence begins when the jet flame strikes the rock. Intense heat causes a layer to expand sharply and break away from the base material. The force of the jet then thrusts the chips aside. Water is injected to cool the combustion chamber, quench particles of fused rock, and finally to produce steam which assists in blowing rock particles out of the hole.

Linde's Jet-Piercer works fastest on rocks containing silica, which normal drilling methods find toughest, and is the result of fifteen years of research and development.

Linde offers Canadian industry a unique concept of total service: the finest in products and processes combined with intensive research and the most advanced engineering methods. We are always ready to provide on-the-job assistance in the application of Linde products and processes to your operation.

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*Pronounced "LIN-DEE"

ANNOUNCEMENT

ELECTED PRESIDENT THE BROWN BROTHERS LIMITED

MR. ALFRED W. DALEY

The Board of Directors of The Brown Brothers Limited are pleased to announce the election of Mr. Alfred W. Daley, Vice-President and Assistant General Manager, to the office of President and General Manager, to succeed the late Mr. J. H. Chipman. The company established since 1846, manufactures and distributes a complete line of commercial stationery and office supplies, as well as fine papers.

Race for New Mortgages Brings in 3,000 Requests

OTTAWA (Staff)—The federal government's direct-lending plan to boost housing construction is off to a flying start.

The home-owners' and builders' rush to get in on the new $150 million federal housing program has surprised officials here.

At the end of the first week (Sept. 13) of operation of the stepped-up scheme to lend directly for residential housing, here was the picture:

—Close to $30 million in applications have been received by approved lenders.

—These include 355 requests from approved lenders; of which 272, worth $2.4 million have been approved by **Central Mortgage & Housing Corp.**

—1,916 other requests for loan amounts have been sent to CMHC.

—An estimated additional 1,000 applications were piled up on approved lenders desks.

If applications continue to flow in as at present, all the remaining money approved by Parliament will be committed in five weeks. This is not thought likely here.

Meanwhile, additional "no-can-do" terms for the direct lending scheme have been announced. Housing units to be erected under the scheme may not have:

—Glass around baths, an extra bathroom or plumbing for one, more than one fireplace.

—More than a one-car garage or carport, garage sundeck, combination sink and automatic dishwasher, automatic garburetor.

—Kitchen counter hot plates, warming drawers, ovens, refrigerators, freezers, furniture.

—Rents of more than $80 per month for one and a half bedrooms per block average plus $15 for janitor service, heating, hot water.

Builders who operate in more than one urban area may have up to 25 loans in each.

Story-and-a-half units may be built to 1,100 sq. ft. and two-story units to 1,150 sq. ft. but they must have three bedrooms.

Oct. 4 Unveiling For Avro CF-105

Canada's first supersonic aircraft, the CF-105, will roll out from the production bays of **Avro Aircraft Ltd.** at Malton, Ont., Oct. 4.

Known as the Avro Arrow, the 1,000 mph-plus missile armed aircraft delta-winged interceptor has attracted much interest in international military aviation circles.

After its unveiling by Defense Minister Pearkes it will be removed to Avro's flight test hangar for its extensive pre-flight test program.

Meet May Decide Kraft Mill Plans

Plans for a proposed $60-million pulp mill project near Prince Albert, Sask., are expected to become clearer at a meeting in Regina next week between officials of **Waskesui Forest Products Ltd.** and Saskatchewan Treasurer C. M. Fines.

Construction was to have started last fall, but was pos poned from time to time, reportedly because of unfavorable market conditions. Option on the property expired September 1, and renewal is to be discussed at the Regina meeting.

As described originally, the mill would have daily capacity of 600 tons of bleached and unbleached kraft, all of which would be exported to the U.S. Newsprint could eventually be produced after modifications to machinery.

Cost of the mill itself is estimated at $32 million. Another $28 million would be spent on a system of all-weather roads and railway lines inside the 5,400 sq. miles of timber limits about 10 miles northeast of Prince Albert.

Mill would employ 3,000, and pay wages of $9 million a year.

HARRY CUTLER

formerly manager for Western Canada, has been appointed manager for Canada, Century Insurance Group, comprising Anglo-Scottish Insurance Co., Century Insurance Co., and Pacific Coast Fire Insurance Co.

U. S. Firm Buys Claude Neon

MONTREAL (Staff) — This week control of **Claude Neon General Advertising Ltd.** was taken over by **General Outdoor Advertising Co.** of Chicago.

Severe Godin, chairman of the Neon board, reported that the U.S. firm had purchased 90% of the Canadian company's outstanding shares.

During July, **Montreal Trust Co.** announced that, acting on behalf of an unidentified client, it had acquired more than a majority of three classes of Neon stock, and was offering to purchase the rest at prices of $100 per share for the preferred stock, $7 per share for Class A stock, and $6 per share for B stock.

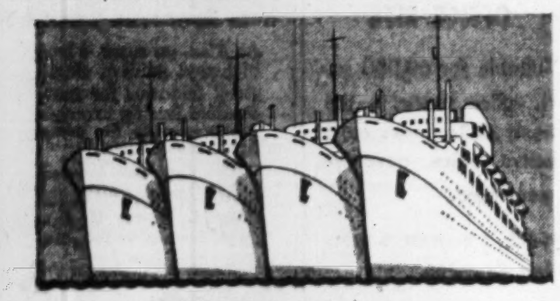
Prices on Montreal Stock Exchange immediately prior to the take-over announcement were: preferred $100, Class A $6.50, and Class B $5.50.

Assets of Claude Neon Co. at December 31, 1956, were $3.1 million, after allowance for depreciation provision. Net profit in 1956 was $117,058, compared with $43,448 in 1955.

No dividends have been paid on any of the three classes of stock singe the company's capital structure was reorganized in 1949.

General Outdoor's sales in 1956 totaled $338,426,856, and net profit $2,503,936.

Claude Neon will continue to operate under its present name. Godin will remain as chairman of the board, while Burr L. Robbins, president of General Outdoor, will become president of Claude Neon. Donovan M. Olson, now treasurer of General Outdoor, will serve as treasurer. They will also act as directors.



Your choice of

4 WHITE EMPRESSES TO EUROPE

With the entry into service of Canadian Pacific's newest luxury liner—The Empress of England—you now have a choice of four White Empresses to Europe. Each one offers the ocean traveller the ultimate in travel comfort along with unexcelled shipboard service. Plan now to make your next holiday an ocean voyage aboard a famous White Empress.

SAILINGS TO LIVERPOOL FROM MONTREAL

Sept. 24 Empress of England
Oct. 1 Empress of Britain
Oct. 8 Empress of Scotland (calls at Greenock)
Oct. 15 Empress of England
Oct. 22 Empress of Britain

THRIFT SEASON FARES NOW IN EFFECT!

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Materials Handling Shows Way To Cut the Costs in Industry

(CONTINUED FROM P. 16)

Harvester 4,000 lb. fork truck which has a wide field of usage, and the versatile U.K.-made 12-ton Coles crane, one of a line with capacities up to 50 tons, which are gasoline or diesel-electric powered.

Mammoth Steel Battery

And among accessories, the Canadian-made mammoth 36v, steel Edison nickel-iron-alkaline storage battery which provides power for propulsion of electric industrial trucks will attract attention. Its plates are assembled in a steel container filled with alkaline solution.

And in another field, one of the spectacular displays will be that by **Stephens-Adamson Manufacturing Co. of Canada** of the S.A. swivelpiler, designed for mounting on the end of a conveyor — a centrifugal thrower unit which throws any bulk material, up to 2-in. lump size, into storage.

It's claimed to be able to increase storage range 10 times as well as eliminating conveyor moves. Other items will be a belt cleaner which has multiple spring blades to remove wet or dry particles from a conveyor belt, and a Tellevel which automatically stops or starts feeding conveyor or elevators as the material level rises or falls.

First In Canada

Also among the fork lift trucks on view will be **Rudel Machinery Co.'s** gasoline-powered G3 series — a new line of pneumatic-tired models which, it's claimed, marked the first major design advance in this type equipment since its introduction nearly 20 years ago.

And also under the Rudel banner will be the Skyworker which will be shown in Canada for the first time. Made by **Emhart Manufacturing Co.**, it is basically a hydraulically-operated boom, equipped with a one or two position crows-nest, and is used for carrying workers aloft and maintaining them on a constant work base at any level required.

Time previously required for the positioning of scaffolds or ladders is saved and flexibility of movement is accomplished by the hydraulic control of vertical travel from zero to 60 ft. and horizontal travel through 400 degrees.

Pneumatic conveyors for materials handling is another field upon which increasing market competition in various bulk material handling industries is concentrating attention.

One of the important displays here will be of Fuller pneumatic conveyors by **Construction Equipment Co.** which has its headquarters in Montreal.

The Airslide or gravity flow is described as an efficient means of unloading large heads of finely pulverized material such as bulk flour, to discharge bins or silos. The material is fluidized with air under low pressure and flows by gravity through an inclined rectangular duct.

Pressure Systems

The Airveyor, a vacuum or low pressure system, is capable of unloading 300 tons an hour, and is designed for unloading crushed and granular as well as pulverized material from boxcars, barges and ships.

Distribution is made through small-diameter pipe, through which movement is induced by means of an air exhauster. Grain of all kinds including brewers' malt can be handled.

The Fuller-Kinyon expanding air pressure system has been generally used in cement and allied industries for over a quarter of a century.

Pulverized coal, limestone dust, flue dust, fly ash and similar materials which can produce contamination, combustion and air pollution when conveyed in the open, can be carried with complete safety to any distance in ducts.

In the booth of **G. N. Johnston Equipment Co.**, one feature will be adjustable pallet racks of **Storage Products Corp.** The racks are equipped with shelves adjustable vertically in 2 in. increments to achieve total use of the cube storage space in a warehouse.

It's claimed they can be used for the storage of fragile or eccentric loads which cannot be stored one atop the other.

Also shown here will be gravity feed racks of **North American Equipment Corp.** which are claimed to feature a large selectivity of items in a compact area, and ensure rotation of stock by automatically dispensing on a first-in-first-out basis.

There will also be vacuum lifting devices from **Vac-U-Lift Co.** which, it's stated, can be designed for virtually any type of product and eliminate the use of mechanical grabs and slings. Awkward items like tanks, and sheet metal are reduced to a one-man operation, and the devices have also found acceptance in the automotive industry for automatic transfer of components.

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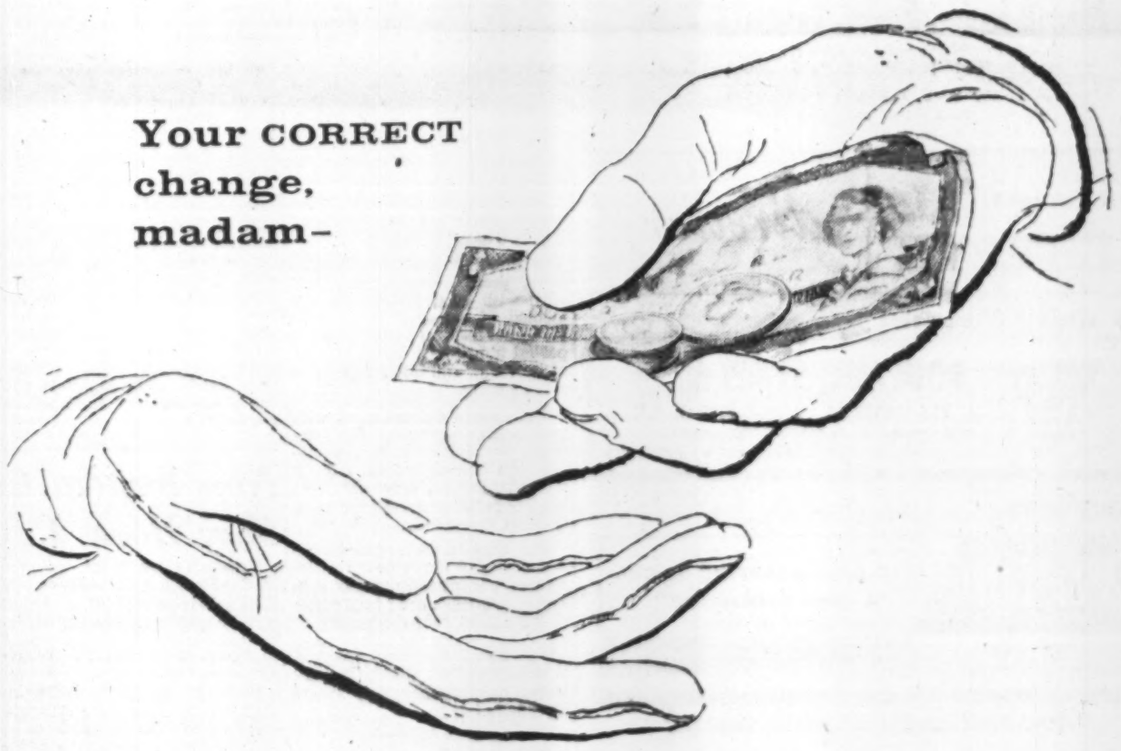

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ANNOUNCEMENT

CANADIAN CELANESE APPOINTMENTS

T. H. HILLIARD

W. M. JONES

C. W. Palmer, President of Canadian Celanese Limited, announces the appointment of T. H. Hilliard as Vice-President, quality and mill cost control and of W. M. Jones as Manager of the Drummondville factory.

Mr. Hilliard was formerly Vice-President and Manager of the Drummondville factory and Mr. Jones was Manager of mill control.

These appointments take effect immediately.

Economic Researcher Blasts Seaway Authority 'Secrecy'

Sweeping criticism of the St. Lawrence Seaway Authority came this week from Toronto economic researcher George F. Bain.

In a letter to Transport Minister George Hees, he said the Authority's reluctance to talk publicly about policy matters may keep Canadians in the dark about key decisions affecting their economic future.

Bain — who did 13 months' study of Seaway impact on lake shipping — is president of Canadian Economic Research Associates of Toronto.

In his letter to Hees, Bain set forth 13 questions on Seaway policy to which, he said, no clear or satisfactory answer could be obtained either from published material or from officials of the Seaway Authority.

Bain expressed fear that the Authority's desire to be secretive in the interests of "ease of administration" may keep important policy matters from being debated in public before irrevocable, and possibly harmful, decisions are made.

"It is not now possible for the public to know what is government policy regarding the Seaway," his letter charged.

First of the 13 questions directed to the minister:

"Have any steps been taken which would impair the ability of Canada to set up a toll structure independent of that of the U. S. if such should prove in our best interests?"

Bain pointed out that a circular letter sent by the Authority to shippers, inviting comment on a limited range of technical questions to be discussed at public hearing in Ottawa this week, is identical in wording, in its operative parts, with a letter sent to U. S. shippers by the U. S. St. Lawrence Seaway Development Corp.

The implication, he suggests, is that agreements may have been reached which curtail Canada's freedom to develop independent Seaway policy, and that these agreements have been made without the knowledge of the public.

Policy Questions

U. S. law, Bain says, calls for public hearings on Seaway questions, a more democratic type of procedure than is called for under the Canadian Act.

Bain said the Authority refuses to make public statements on these policy matters:

What are to be computed as operating costs against which tolls will be charged?

What is the total cost which must be amortized by a toll system?

What is the current forecast of traffic levels for the purpose of computing tolls?

Since the latest estimate of total Seaway cost showed an increase of 33% from the estimate a year ago — with a 159% increase in the estimate for the Welland Canal works alone — Bain said that experience with Seaway cost forecasts has not been such to instill confidence in other forecasts connected with the project.

The current estimate of annual operating costs — some $28 million — gives no clarification as to what is included under the heading, or whether the figure applies to the whole or part of the Seaway. This estimate, which represents interest at 5% on a capital of $56(million (or twice the capital cost of the Seaway itself), should be clarified for the benefit of the public, Bain says.

Toll Poser

The method of bringing tolls into effect also came under fire from the Toronto economist.

According to the Act, he says, a toll comes into effect from the date on which it is filed with the Board of Transport Commissioners.

Against a joint Canadian-U. S. toll ruling, he says, Seaway users appear to have little opportunity to protest. Users can appeal against purely Canadian tolls to the Board of Transport Commissioners on certain narrowly-defined grounds, but the Board appears to have no authority to alter the toll; it can merely report its views to the Authority.

A user who disagrees with the finding of the Board can appeal to the Supreme Court of Canada, but the Court's ability to instruct the Authority is not clear, Bain argues.

Status of the Welland Canal is another matter dealt with in Bain's letter. The Authority, he says, has let contracts for work on the canal — which is generally thought to be part of the Seaway — but there is no evidence that the Governor-in-Council has entrusted the operation of the Welland Canal to the Authority.

Also not clear, the economist says, is whether part of the burden of deepening operations will be charged to present Welland Canal users who do not ply below Lake Ontario.

Fate of Canals

A further question on which the Authority is silent, Bain says, is policy regarding the fate of 14-ft. canals at Lachine, Soulanges and Cornwall. Industries which presently enjoy advantages because of their location on or near these shallow-draft canals should not be penalized by closing the canals without some recompense, he claims.

One economic result of closing the shallow-draft canals could be the loss of large amounts of tourist revenue in Ontario and Quebec, he thinks.

Views of Quebec and Ontario tourist officials, as well as those who may plan pleasure-craft operations commercially, should be canvassed before decisions are reached, Bain says.

He also asks the minister for clarification of the government's attitude to U. S. shipping subsidies, in relation to the non-discriminatory clause of the 1909 Boundary Waters Act.

Under the Act, the "high contracting parties" (Canada and the U. S.) agree that each can set its own tolls in its own waterways, but these tolls must be uniformly applied to the ships of both nations.

U. S. shipping subsidies, Bain says, are, in effect, a breach of this non-discrimination clause.

While it is generally agreed that there must be tolls, Bain continues, it might be well to consider allowing certain cargoes to pass, toll-free.

As an instance, he cites iron ore moving from Seven Islands to Lake Erie. The toll will have the effect of a tariff on this ore, he says, will place it in a bad competitive position with Mesabi ore moving through toll-free canals from Duluth to the same destination.

Bain claims that attempts have been made by the Tolls Committee of the Authority to discover the "break-even" rate of toll on various commodities—that is, the exact rate at which the commodity would cease to move.

Setting tolls by such methods, Bain warns, is dangerous and might offset the effect of legislation such as the Maritimes Freight Rate Act.

The Bain letter calls on Hees to ensure public statements made on all Seaway policy matters, and to open up all policy questions for public discussion before irrevocable decisions are reached.

In some instances, Bain said, decisions had to be reached by secret international negotiations. But, in others, the cloak of secrecy might be used to allow officials of the Authority to formulate policies designed more for administrative convenience than for public welfare.

Big Season Seen For Nfld. Berries

From Our Own Correspondent

BONNE BAY, Nfld. — On the northwest coast of Newfoundland and Labrador, bakeapples—"golden fruit of the marshes"—are at their best in years.

Raspberries are also reported plentiful in the same area. So are marshberries.

There is quite a business in canned bakeapples and both demand and price is high this year.

Dates for blueberry and partridgeberry picking have been set by the government. Blueberries alone are set at a $500,000-a-year industry.

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Welland Tolls Issue Sparks Behind-the-Scenes Struggle

Special Correspondence

WASHINGTON, D.C.—A quiet campaign appears to have been launched at last week's St. Lawrence Seaway tolls conference here to prevent tolls on the Welland Canal.

Several speakers told the meeting they did not consider the Welland as part of the Seaway and therefore they hoped it would be toll-free. This was discussed further privately after the session.

The Canadian government is on record as saying the Welland will have to be tolled to recoup the cost of the improvements in the canal done in connection with the St. Lawrence Seaway.

"We do not consider the Welland Canal as part of the Seaway and we sincerely hope that it will remain toll free," said Lyndon Spencer, president of the Lake Carriers Association.

He made his remarks directly to the members of the Canadian Seaway Tolls Committee who sat in on the Washington meeting as observers.

It was mentioned privately here that the U. S. Corps of Engineers is spending more than $100 million to improve the Great Lakes connecting channels and this is not being paid off through tolls but is looked upon as a straight government expenditure.

It was further said that if Canada tolls the Welland, this might lead to U. S. retaliation in tolling the Sault locks.

E. Reece Harrill, the U. S. Tolls Committee chairman, however, says what Canada does on the Welland is strictly up to the Canadians. He says whatever Canada does is all right with him.

No Tolls Plea

The Hamilton Chamber of Commerce has written a letter to Transport Minister George Hees imploring him to prevent tolls on the Welland.

The letter notes that if the Welland is tolled it will up the cost of ore, therefore boosting steel prices and consequently meaning higher prices across Canada for household appliances, railway freight cars, bridges, farm machinery, etc.

A toll on the Welland "is bound to affect both living and production costs elsewhere in this country," the letter says.

"The Hamilton Chamber of Commerce . . . urges strongly that the present system be adhered to and that no tolls be imposed upon traffic moving through the Welland."

Eastern U. S. railroads and the Atlantic and Gulf ports, longtime foes of the Seaway and now anxious to see high tolls throughout the Seaway so they won't lose business, have become alerted to the quiet campaign against tolls on the Welland.

James W. Danahy, chairman of the New York-New Jersey Committee for a Self-Supporting Seaway, already has issued a warning against no Welland tolls.

He has indicated that if the campaign proceeds, his organization, the most powerful of the present high toll groups, will demand that the entire cost of building the Welland be thrown into the amount of money to be amortized by tolls.

"It has been our understanding since the earliest Seaway hearings that work already completed by Canada and the U. S. was to be considered as part of the total cost of the Seaway and that this figure constituted the base for tolls after the Tolls Amendment was introduced in 1947," he says.

"In this connection, and definitely indicative of the fact that this prior work was part of the Seaway, we should recall that the existing Welland Canal, on which Canada expended $132 million, was opened in 1932 which was many years after Canada and the U. S. initiated Seaway negotiations."

Danahy issued this statement as a supplement to the one he made before the Washington conference on tolls.

Canadian Ship-Owners Ask Toll-Free Canadian Locks

An unusual proposition was scheduled for consideration in the St. Lawrence Seaway tolls fight this week.

The proposition: That no tolls be charged on Canadian locks, regardless of the U. S. decision.

The tolls committee of the Seaway Authority opens public hearings in Ottawa Thursday.

Contrary to earlier assumptions, these hearings will deal only with such matters as the method of assessing tolls; rules for vessel measurements; tolls for partial transit of Seaway; method of payment, and other aspects of a toll system.

The agenda did not meet with unanimous approval. For example, Dominion Marine Association will be represented, but FP understands that arguments will not be offered on the specific questions on the agenda.

The organization, representing a majority of Great Lakes vessel owners, has instead recently submitted a 49-page brief to Minister of Transport Hees contending — as it does before the toll committee — that the primary question is not how tolls should be collected but whether they should be imposed at all.

No Tolls Agreement

The association, it is reported, takes the stand that there is not now, nor should there ever be, a binding international (Canada-U.S.) agreement to impose tolls on the Seaway.

The nearest approach to such an agreement, DMA claims, is a declaration by former Prime Minister St. Laurent to Parliament some years ago which announced that the two countries had "agreed in principle" that the Seaway should be a self-liquidating project.

"Why not," DMA asks, "make the five Canadian locks and the Welland Canal toll free? The U. S. Seaway authorities are bound by an act of Congress to recapture the Seaway capital costs but Canada is not so bound."

The submissions by Dominion Marine Association to the transport minister are the results of exhaustive economical and traffic surveys in all the important aspects of probable Seaway effects.

Some of the findings have already been put before those sections of the general public likely to have the greatest interest in the toll problems, including Western Canada grain exporters and the producers and users of ore and coal.

New System to Cool Cables May Boost Capacities by 50%

Research engineers of the **Hydro-Electric Commission of Ontario** have developed a revolutionary system for cooling underground cables which is expected to increase power-carrying capacity substantially.

The new system is being installed alongside four 115,000v transmission circuits now going underground on Toronto's Lakeshore in the Humber River-Strachan Ave. section because of the new expressway project.

Here, Hydro states, the cooling system may result in an increase of up to 50% or 60% capacity in the power-capacity of these circuits.

Slated for completion in Nov., the underground circuits will replace 31 steel towers and associated overhead transmission facilities.

Total length of cable required for the 3.5 mile route is 41.5 miles, each of the four circuits requiring three cables.

It's believed to be the largest cable-laying project of its kind in Ontario and possibly Canada.

The new cooling system uses polyethylene pipe to carry water from municipal mains between the cables. The water is renewed every 1,600 ft. to 2,000 ft., and has the effect of increasing transmission limitations caused by "hot spot" sections in the circuits, occurring where soil conditions are specially resistant to the transfer of heat.

Cost of taking the circuits underground is estimated at $3.5 million, and was borne by Metropolitan Toronto.

But where normal capacity of the circuits would be 560,000 kw, it's believed the cooling system will enable them to carry an additional 300,000 kw.

Toronto Appeal Asks $9 Million

This year's objective for United Appeal of Metropolitan Toronto—Canada's largest United Appeal and the eighth largest on the continent—is $8,926,952.

This is $1,228,028, or 16.1% higher than the amount collected last year.

Reasons for the increase:

—Seven new agencies have joined the appeal (bringing the total to 94), making necessary an extra $350,000.

—Newly inaugurated Red Cross free blood transfusion service, $113,000.

—Increased demands on the member agencies.

—Inflation.

In making the allocations, the appeal's budget committee cut requests by more than $350,000.

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ANNOUNCEMENT

DUNCAN F. ANDERSON

The appointment of Duncan F. Anderson, Vice-President, Sales, as Executive Vice-President of Hugh C. MacLean Publications Limited, is announced by James A. Daly, President. Volume of advertising space placed in Hugh C. MacLean publications has doubled in the last three years, said Mr. Daly. This company expansion has made necessary a division of executive responsibilities.

Mr. Anderson has held his former position since April, 1956, prior to which he was Group Manager, Industrial Publications. He has been with the Company 10 years.

New Safety Group President Alberta Highways Minister

New chairman of Canadian Highway Safety Conference is Highways Minister Gordon Taylor of Alberta. He succeeds Quebec's Transport Minister Antoine Rivard.

Said Taylor:

"Thinking and acting safety, safe driving and safe walking should become as natural as brushing your teeth . . ."

Elected as vice-chairmen at the Toronto meeting which named Taylor:

- George B. Kenney, president of **All Canada Insurance Federation**, Montreal.
- Rhys M. Sale, president of **Ford of Canada**, Toronto, representing Canadian Automobile Chamber of Commerce.
- Claude Jodoin, president of Canadian Labor Congress, Ottawa.
- A representative of the federal department of health and welfare. He will be named later.

Assistant Commissioner D. A. McKinnon of RCMP, Ottawa, was re-elected secretary; Ira G. Needles, representing Rubber Association of Canada, is treasurer.

Members of the executive committee for the coming year:

W. M. V. Ash, president of **Shell Oil Co. of Canada**, Toronto; F. W. Roffey, president of Association of Canadian Distillers, Montreal; E. R. Alexander, vice-president, **Sun Life Insurance Co. of Canada**, Montreal; C. W. Gilchrist, managing director, Canadian Good Roads Association, Ottawa; Mrs. Rex Eaton, president, National Council of Women, Dollarton, B.C.; Hon. Antoine Rivard; E. A. Everson, of the Federation of Automobile Dealers' Associations, Montreal; and Wilbrod Bherer, chairman of Provincial Highway Safety Committee of the Province of Quebec.

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Ottawa Ponders Decision to Build CF-100 Mark VI

At mid-week officials at **A. V. Roe Canada Ltd.** in Toronto were awaiting definite word whether the Federal Government will cancel plans for a $100-million purchase of the Mark VI model CF-100 all-weather jet fighter.

Decision not to build the Mark VI is believed something Ottawa has been considering. Reasons: It wants to cut defense spending; and the Mark VI would only be an interim plane pending the arrival of Avro's supersonic CF-105 in full service.

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Just arrived from England has up to $265,000 to invest in either Real Estate or any profitable business in which he can take active part. Further sums may be available in six months. Details in confidence to
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Conservative but substantial capital seeks equity financing or outright purchase of established Canadian companies having top management.

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On Northeastern U.S. Seaboard. Available for sale or merging. Melting capacity of 2,500 tons yearly per shift. Volume for 1956 in excess of $1,000,000.00. Highly automatized, with high profits and excellent following. Most suitable as captive subsidiary or profitable diversified holding. Principals only.

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Excellent business opportunities offered by a rapidly expanding oil company for the marketing of internationally known motor oils and greases. Organizations or individuals capable of developing this potential market, are asked to write giving full details of organization, business record, financial references, etc., to

Box 201, The Financial Post, Toronto

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for
MONTREAL CONSULTING FIRM
Please submit résumé, photograph, and salary requirements.
Box 208, The Financial Post, Toronto

AVIATION EXECUTIVE AVAILABLE
Married man, sober, respectable, 40 years old, selling own business enterprises. College trained, twenty years experience in many phases of aviation, sales, construction, airlines, overhaul and flying operations. Would like to locate in aviation or affiliated industry. Can move anywhere if prospects are right.
Box 210, The Financial Post, Toronto

PARTNER
Mech. Engineer with production and engineering record, drive and initiative, required to take over gradually manufacturing side of an established recently organized company. Give professional and financial information. Toronto.
BOX 197, THE FINANCIAL POST, TORONTO

YOUNG EXECUTIVE
Seeks challenging position with future in expanding energetic young firm. Age 36, has broad financial and administrative experience all divisions small manufacturer, including production, sales, accounting, credit, etc. Presently employed, new locale not important, Ontario preferred. Best references.
Box 193, The Financial Post, Toronto

SALES EXECUTIVE
Young executive, 39, university graduate in science and engineering desires to relocate. Highest qualifications, 17 years diversified experience in production, marketing and sales. Seeks position as member of sales management team preferably with company manufacturing industrial products or building materials.
Box 192, The Financial Post, Toronto.

TECHNICAL SERVICE CONSULTANTS
Experienced chemical engineer will exclusively service your customers on a retainer plus travelling expense basis.
Regular coverage and complete reports.
Let us discuss your requirements.
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CHEMIST
Rubber and plastics chemist/technologist A.I.R.I., A.P.I., seeks position of responsibility and scope with manufacturing company in Canada. Ten years experience England, Canada and U.S.A. including specialty compounding cables, tires, mechanicals, extrusions, injection molding, laboratory and production supervision. Currently employed U. S.
Please write Box 205, The Financial Post, Toronto

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FOR
ROAD BUILDING MACHINES

Would you like to produce road building machines? I am 36 years old, and am working as chief constructor for a German manufacturer. I should like to emigrate to Canada, and am willing to see anybody seriously interested in discussing the matter. Please airmail any offers to

Box # SL 8502 WEFRA, Grosse Eschenheimer Strasse 39, Frankfurt, Main, Germany.

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SONOTONE, a dynamic, highly respected leader in the hearing aid field for over 25 years, has exclusive dealerships available in major cities of Canada.

Dealers will benefit from frequent company advertising in leading magazines . . . extremely liberal local advertising support . . . sales stimulating direct mail plans . . . existing list of users and prospects . . . outstanding guarantee feature.

These dealerships give solid security of an excellent income year after year.

Modest investment required.

We want only dedicated individuals who can and are willing to devote full time to the success of this franchise. If you honestly feel you can qualify, write briefly to the undersigned, indicating your background, experience and financial responsibility.

Mr. E. P. Weber
Manager, Hearing Aid Sales
Sonotone Corporation
Elmsford, N.Y., U.S.A.

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Required by Montreal General Contractor for accounting and administrative duties. Under 30 years of age. Submit complete details.

Box 214, The Financial Post, Toronto

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A leading diamond company wants an energetic, personable and intelligent young man between the ages of 22-28 who is willing to devote his complete energies to learning and practicing a profession which will ultimately give him unlimited financial return.

Although we offer a pension and insurance plan we do not want a man who looks to these props for his future. We want a man, who having learned his profession, is willing to travel, open new sales offices and in general, create an important place for himself in the field. Starting salary by mutual agreement. Send complete resume to

Box 195, The Financial Post, Toronto

One of our Toronto clients, an established highway construction company, requires an

ACCOUNTANT — OFFICE MANAGER

to assume immediate and full responsibility for all accounting and tax matters.

This position calls for a Chartered Accountant, preferably in his thirties, with initiative and the ability to work in close association with management.

The starting salary will be from $6,000 to $7,200, depending on qualifications.

Apply by letter only, giving full details of experience, to

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Age 25, married, one child, B.B.A. and M.Sc. degrees in Bus. Admin. and retail management, seeks association (full Time) with management consulting firm or advertising agency wishing to establish or strengthen their retail service dept. 7 years' experience in retailing procedures. Can contribute dynamic ideas. Salary required $6,500 per year. Presently officer and director of specialty store operation. Prefer Montreal or Toronto location.
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Executive Salesman Mature Well Known and Established in Automobile and Truck Selling.

Will consider **Sound proposition.**
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WITH EXECUTIVE ABILITY

Specially suited for management control from design to completion. Graduate 1937, P.Eng. Ont. Age 40. Would consider senior sales position in above related fields. Presently employed but seeking more scope for past experience. Reply in confidence to

Box 211, The Financial Post, Toronto

Assistant Director of Education

The Investment Dealers' Association of Canada invites applications for a senior position as Assistant Director of Education. Applicants should be under 35 years of age and possess writing skill, initiative and a talent for working with committees. University degree required; experience in the field of education or in the investment business desirable. Duties include the preparation and supervision of correspondence courses and other educational materials. Initial salary commensurate with qualifications and experience. Good prospects for advancement. Apply in the first instance by letter to

The Secretary, The Investment Dealers' Association of Canada
170 Bay Street, Toronto 1, Ont.

Replies will be treated in confidence.

UNDERWRITER

Newly organized life insurance company in Toronto requires a man experienced in life and group accident and health underwriting in head office. Applicant should be capable of organizing all aspects of an underwriting department.

Applicant should give age, salary expected, and full particulars of past experience. All replies in strictest confidence.

BOX 206, THE FINANCIAL POST, TORONTO, ONTARIO

EXPERIENCED CHEQUE SALESMAN

An unusual opportunity exists for an energetic, thoroughly qualified sales representative in the commercial cheque printing field. The applicant must have vision and administrative ability to expand a small unit of a larger company. Salary, commission and profit sharing. Welfare benefits. State fully your experience, present level of remuneration, and why you believe you have management abilities.

APPLY BOX 207, THE FINANCIAL POST, TORONTO

ASSISTANT TO MANAGEMENT

University graduate, age 41, married, with accounting and auditing background in industry is seeking a position with more scope and would be interested in serving as Executive Assistant to top management rather than continuing in the accounting field. Presently studying Management and Business Administration courses.

Box 199 The Financial Post, Toronto.

EXECUTIVE ASSISTANT

to General Manager of large Lumber Manufacturer with logging and sawmill operations. Engineering background desirable. Good prospects, pension plan and other benefits. State age, experience, qualifications, marital status, etc. Replies will be acknowledged and will be treated in strict confidence.

GEO. A. WELCH & COMPANY
Chartered Accountants
213 Laurier Avenue West, Ottawa

ASSISTANT TO VICE-PRESIDENT

A one-time chance for a man with intelligence, ambition and executive ability. A large national building materials manufacturer with headquarters in Montreal is seeking a man to assist the vice-president in charge of sales. This is a big job with a big future.

The right man should be between 30 and 40 years of age. He should have successful selling experience, if possible, in the building materials field. He should have experience supervising and administrating other people's work. He should have some knowledge of advertising. He should be aggressive, persistent, loyal and dissatisfied with the obvious. He should, preferably, have a university degree.

The salary is open—to be negotiated in accordance with the man's ability and experience. All usual benefits—pension, insurance, hospitalization, etc.

If you think you can meet the challenge, write stating your qualifications for the position. All replies will be kept in the strictest confidence.

P.O. BOX 203, THE FINANCIAL POST, TORONTO

COMPTROLLER

Toronto industrial company engaged, along with subsidiaries, in construction work and in the fabrication of steel products, wishes to employ Chartered Accountant or equivalent as Comptroller.

Position requires previous business experience and a sound knowledge of accounting, cost and budgetary controls. Salary $7,500-$8,500 depending on qualifications.

Replies, which will be held in strict confidence, should state age, education, past experience and present salary and be addressed to:

J. D. Woods & Gordon Limited
15 Wellington Street West
Toronto, Ontario

MANAGER WANTED
FOR PRIVATE CLUB

A private golf and country club in the Toronto area requires a general manager. An excellent full-time position with attractive salary and benefits for high calibre executive. Reply stating age, qualifications, references, salary expected.

Box 196, The Financial Post, Toronto

ACCOUNTANT

A progressive expanding manufacturing organization located in Toronto requires an alert forward-thinking man in the 28 to 30 year's age bracket. This man will report direct to the Comptroller and will have an opportunity to become an important member of a dynamic accounting and control division.

The applicant, who need not be a fully qualified accountant, should be interested in all phases of industrial activity and must have had industrial account experience. Preferably he will be conversant with I.B.M. methods. The starting salary and opportunity for advancement are excellent.

BOX 213, THE FINANCIAL POST, TORONTO

CREAMERY MANAGER
EASTERN ONTARIO

Required to manage creamery operation handling approximately two million lbs. butter fat per year. Processing includes butter manufacturing with continuous flow process, ice cream making and powder processing.

Applicant should have experience in procurement, supervision of plant operations, sales and proven record of successful management. This position offers good opportunity with expanding provincial organization.

Salary fully commensurate with qualifications, good benefits including pension and profit sharing.

Please reply in confidence stating full details to
Personnel Manager
UNITED CO-OPERATIVES OF ONTARIO
35 Oak St., Weston, Ontario

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2. **ADMINISTRATIVE ASSISTANT.** Purchasing, Production and Sales exp. in Adv. and Insurance. Young, married, salary to $7,200.

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UNUSUAL OPPORTUNITY FOR

Supermarket Executive

An expanding national food chain requires top level administrator for new division. This senior and experienced executive must have broad management background, regional operational knowledge, and must be able to assume considerable responsibility. The right man (and he's someone close to the top in his present organization) is assured of the right salary, incentive and security. For the successful applicant this is a "once in a lifetime" opportunity.

Our present executives are aware of this announcement. Naturally all replies will be held in strict confidence.

BOX 194, THE FINANCIAL POST, TORONTO

SELECTION OF POSITIONS OPEN

1. **DEPT. STORE MGR.** To $12,000.
   Must have background in high class Ladies' and children's wear.
2. **DIVISIONAL MGR.** To $10,000.
   Dept. Store exp. in Accessories, Sports and Women's wear. W. Ontario.
3. **SALES PROMOTION MGR.** To $10,000.
   Soft Goods. W. Ontario.
4. **SENIOR TRAFFIC MGR.** Open.
   Must have P.R. and publications exp.
5. **EMPLOYEE COMMUNICATIONS EDITOR.** To $8,000+.
   P.R., Photo and Copy. N. Ontario.
6. **FOOD CHEMIST.** to $8,000.
   Univ. grad. New products & research.
7. Several top-level AERONAUTICAL DESIGNERS.

J. K. THOMAS & CO.
Placement Consultants & Psychological Services.
46 Avenue Road, Toronto 5 • WAlnut 3-9805

SALES MANAGER

Excellent opportunity for sales executive to become sales manager of a recently organized, Canadian financed, copper mill in British Columbia.

Plant will produce drawn and cast copper and brass tubing, bars and shapes, for the construction, refrigeration, automotive and similar industries.

Candidates for the position should have proven administrative ability and be capable of conducting market surveys and organizing, training and directing a sales force. Preference will be given to candidates who have specialized experience in the class of products involved and currently have contacts in the trade.

Salary for the position will be commensurate with experience and future possibilities relating to the position.

Applicants are requested to give full particulars of qualifications and experience and are assured that applications will be held in strict confidence.

Replies should be addressed to

Box No. 183, The Financial Post, Toronto.

You and Your Job

This fall and winter thousands of Canadians will be looking for new jobs, for their first jobs, or critically at their old jobs. These articles tell how, when and why to look.

By WALTER LOWEN

The Vital Interview

(This is the third of a series based on the book "How and When to Change Your Job Successfully," by Walter Lowen, published by Simon and Schuster, New York.)

When you go to be interviewed by a prospective employer, you are selling a product—a valuable and important piece of merchandise: yourself. Take a leaf from the strategy of success and present yourself in an "attractive package"—well-groomed, neatly dressed, alert, confident.

For your interview, you must groom not only your body but also your mind.

In the first place, before going for an interview, find out everything you possibly can about the firm and about the person you are going to see. This places you at an advantage, for you can talk about yourself in terms of the needs or requirements of the employer.

Whatever You Do, Don't Be Late

You are now ready for the interview itself. Be sure, at the outset, that you will get things off on the right foot by being on time. Don't dawdle en route, don't cut your time too close, don't fail to allow for missing trains or buses, or for a tie-up in traffic. Excuses are of no value if you are late.

There is a definite etiquette to the pattern of an interview. When you arrive, give the receptionist your name. Then say, "I want to see Mr. Brown about a job in the accounting department"—or whatever the case may be. Give her all necessary information so that he won't have to ask you questions.

When you are admitted, approach with a cheerful "Good morning, Mr. Brown." (If the door is closed, be sure to knock before entering.) Don't offer your hand in greeting unless the interviewer extends his hand first.

Be Sure to Shake Hands Properly

It has been suggested that someone should write a book about the art of handshaking, with chapters devoted to such horrible examples as "ring-benders," "knuckle-crackers," "hanger-on-ers," "look-away-ers." A handshake provides a forthright meeting of hand and eye, and a firm, dry, brisk handclasp conveys a firm, competent, confident personality.

Now for the vitally important business of selling yourself. Let the employer set the pace for the interview. If he seems to be in a hurry, present your story and get yourself out as quickly as possible. If he seems inclined to ask you questions and draw you out, let the interview take its own leisurely course; don't try to rush it.

When an employer says, "Tell me about yourself," he wants a quick, brief, informative summary of who you are, what your training and education have been, what previous experience you have had, and why you think you are qualified for the job in question.

Tell him all you can about yourself in a few well-chosen sentences, emphasizing whatever you feel has helped develop your fitness for the kind of job under discussion, but omitting all irrelevant material.

Remember that, all the while you are talking, the prospective employer is studying you and appraising your character and personality. Don't fidget.

Answer an interviewer's questions simply, directly, and truthfully. Don't talk around a subject.

Here Comes the 'Big Question' . . .

Eventually one comes face to face with that ticklish question: "What salary do you expect?" There are many ways to answer this without either getting yourself in trouble; settling for less than the boss is willing to pay; or asking for so much that you forfeit your chance for the job.

THE WOLVERINE tries to wiggle her way through an interview. She sees herself as a femme fatale. If she gets the new job, her desk will gather dust while she minces around every office bachelor.

My advice is always that, wherever possible, you should get the employer to make you an offer by saying to him: "How much does your budget afford?" or, "How much do you feel I can be worth to you in the spot where you can use me?"

If the potential employer presses you and you have to counter with a flat statement, you can say: "If you want to know what value others have placed on my services, I earned 'so-and-so-much' at one job, and I'm now making 'so-and-so-much' at my present one."

From there you can go in either of two directions. You can say: "I wouldn't like to start for less than 'so-and-so-much'—and this is less than I really feel I can be worth to you." That leaves the subject open, and up to the employer.

Always, Always Follow Up the Interview

If nothing is settled by an interview, you should follow it in a day or so with a letter. In it, thank the prospective employer for his courtesy, and suggest that you are available for further questioning.

Such a letter, arriving when the employer is considering four or five applicants, may influence him to make a decision in your favor.

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(In the fourth article of this series Mr. Lowen tells how to quit your old job in a proper manner).

New Buildings, Harbor Work Boost DPW Contracts Total

Contracts awarded by the federal department of public works last month were nearly three times the value of the previous month's awards, and nearly all of the $7,253,536 total was for new works in building construction and harbors and rivers engineering.

Two major items in the list were the $1.5 million new customs building at Saint John, N.B. and the $1.3 million new federal building at Belleville, Ont.

Here are the principal projects

Charlos Cove, N.S. — Reconstruction of breakwater — **Continental Construction Ltd.**, Dartmouth, N.S., $53,700.

Bathurst, N.B. — New federal building — **The Ellis Don Ltd.**, London, Ont. $353,900.

Cape Bald, N.B. — Improvements to harbour — **J. W. & J. Anderson Ltd.**, Burnt Church, N.B., $74,384.

Newcastle, N.B. — New federal building — **Kenney Construction Co.**, Yarmouth, N.S., $342,000.

Saint John, N.B.—New customs building — **Acme Construction Co.**, Saint John, N.B., $1,533,918.

Beloeil Station, P.Q. — Reconstruction of guide piers and icebreakers — **Tracy Construction Ltd.**, Ville de Tracy, P.Q., $90,925.

Caughnawaga Agency, P.Q. — Four classroom-addition to R.C. Senior Day School for Department of Citizenship and Immigration — **Lemieux Construction Ltd.**, Montreal, $48,998.

Clarke City, P.Q. — Repairs to wharf and dredging — **Alphonse Montminy**, St. Francois, P.Q., $62,284.

Richmond, P.Q. — New federal building — **Vincent Freres Ltee.**, Sherbrooke, P.Q., $187,821.

Sorel, P.Q. — New federal building for Unemployment Insurance Commission, Post Office Department and Customs Branch of Dept. of National Revenue — **Benjamin Robidas Ltee.**, Drummondville, P.Q., $597,000.

Belleville, Ont. — Deisel power plant, machine shop and air-conditioning for constant temperature rooms at Agricultural Science Service Laboratory for the Department of Agriculture — **M. Sullivan and Son Ltd.**, Arnprior, Ont., $103,897.

Cobourg, Ont. — New federal building — **James Kemp Construction Ltd.**, Hamilton, Ont., $370,060.

Belleville, Ont. — New federal building — **M. Sullivan & Son Ltd.**, Arnprior, Ont. $1,330,649.

London, Ont. — Conversion of recreation hall to Roman Catholic Chapel at Westminster Veterans' Hospital for Department of Veterans Affairs — **The Ellis Don Ltd.**, London, Ont., $42,200.

Ottawa — Installation of new water services at Central Experimental Farm — **Clairson Construction Co.**, Toronto, $87,000.

Cardston, Alta.—Supply and installation of new boiler at Indian Blood Hospital for Department of National Health and Welfare — **Hall Bros.**, Cardston, Alta., $31,227.

Vancouver — Construction of technological station at University of British Columbia for Department of Fisheries — **Turnbull and Gale Construction Co.**, Vancouver, $674,250.

Fort Smith, N.W.T. — Construction of frame buildings for Depts. of Northern Affairs and National Resources, R.C.M.P., Post Office and National Health and Welfare — **Yukon Construction Co.**, Edmonton, Alta., $360,400.

Contracts were awarded for dredging as follows:

Grand Vallee, P.Q. — **Bert Dimock**, New Richmond, P.Q., $22,950.

Amherstburg, Ont. — **McQueen-Marine Ltd.**, Amherstburg, Ont., $72,000.

Grand Bend, Ont. — **Dean Construction Co.**, Belle River, Ont., $21,250.

Goderich, Ont. — **Ontario Marine and Dredging Co.**, Toronto, Ont., $232,875.

Hamilton, Ont. — (Ship Street) — **J. P. Porter Co.**, Montreal, $193,200.

Hawkestone, Ont. — **Simcoe Dock & Dredging Co.** Willowdale, Ont., $8,500.

Rondeau, Ont. — **Detroit River Construction Co.**, Blenheim, Ont., $70,560.

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Autumn is the time to "land cruise" across Canada . . . scenery is at its peak . . . weather is at its finest! And by Canadian Pacific Scenic Dome trains you see Canada in complete comfort . . . relaxed in reserved, reclining coach seats or in the "Domes" . . . with your choice of Skyline Coffee Shop or Deluxe Dining Room Car . . . and a variety of enclosed-space accommodation, from Roomettes to Drawing Rooms.

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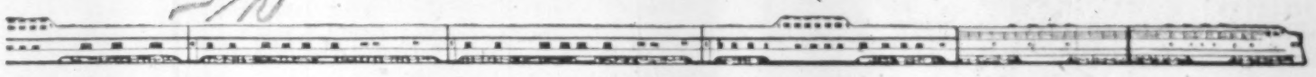

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Easy Drawing... Richer Flavour

A Really Milder High Grade Virginia Cigarette

Student Influx to Exceed College Building Plans?

Canadian universities this month will bulge with all-time-high enrolments. The influx may be so great as to suggest two possibilities:

- Our rate of growth in enrolments may be considerably faster than even present stepped-up university expansion plans envision.
- We may be moving toward a "U. S.-type" university attendance pattern, in which case present expansion plans would be quite inadequate.

The proportion of university students in the eligible age groups is three times as great in the U. S. as in Canada.

An **FP** spot check of university officials (**FP**, Sept. 14) showed that nine major institutions which last year enrolled 35,105 students, this year expect 39,100.

Reports from two additional university registrars give this sample:

Eleven major institutions, which last year enrolled 45,600 students or 58% of the Canadian total of 78,100, this year expect 51,600. This is a 13% increase.

If increases at other institutions are of like magnitude, total enrolment will be above 88,000. The increase between 1955 and 1956 was only 9%.

Two years ago, Dr. E. S. Sheffield of Dominion Bureau of Statistics, threw the academic world into a turmoil by predicting that Canadian enrolments would probably rise from about 64,000 in 1954 to about 123,000 in 1964-65.

Revised Plans

This was the basic prediction which started universities on their present feverish building plans.

The 1955 prediction was based on birth statistics, and dealt with the relationship between total numbers in the 18-21 age group and numbers attending university.

In 1941-42, 3.4% of this group in Canada attended university; by 1954-55, this had risen gradually to 7%. Dr. Sheffield's prediction was based on extension of this "trend line" to 1964-65.

If the trend of the future followed that of the immediate past, 10% of persons in this group will enrol at university by 1964-65. On the basis of the 1955 prediction, the number expected to attend at this time would be 10% of 1.23 million (the number of Canadians now born, who will be 18-21) or 123,000.

This spring, Dr. Sheffield caused an additional furor in academic circles by taking a look at his earlier prediction in the light of experience of the intervening two years. He concluded that the earlier prediction might have been much too conservative.

Actual enrolment figures had been 2% and 6% higher than predicted. These would be consistent with enrolments of 170,000-180,000 by 1964-65.

Enrolment figures this year of 88,000 (almost 9% of the 18-21 age group) would be consistent. Such an enrolment would be 12% higher than Dr. Sheffield predicted.

However, most present plans—and they've been under formation for two years—are based on the 123,000 figure.

Some academic planners have suggested that 30% of Canadians in the 18-21 age group will eventually attend university. This is the U. S. percentage, where educators are now talking of 50%.

This year's rate of enrolment increase will certainly be greater than that in the U. S. where the figure is expected to be 6%.

B. C.'s 'Birthday Party' Will Include Trade Fair

(Special Correspondence)

VANCOUVER — Trade and industry will help British Columbia celebrate its 100th birthday next year.

The government will sponsor an International Trade Fair in co-operation with business leaders and directors of the Pacific National Exhibition, Canada's second largest fair.

The fair will run for two or three weeks in May so as to be tied in with the Washington State International Trade Fair in Seattle. It will be held at the PNE grounds.

It will be open to foreign and Canadian importers and exporters, manufacturers, and foreign governments, for prestige and trade exhibits.

Said R. W. Bonner, minister of industrial development, trade and commerce:

"The fair will promote the accepted practice of reciprocal trade with those countries with which we are doing business. Initial reaction has been most encouraging."

The following committee is working on details:

W. J. Borrie, president, PNE; Alderman William Orr, PNE director and member of the Centennial Committee; L. J. Wallace, chairman, Centennial Committee; T. L. Sturgess, deputy minister of industrial development, trade and commerce.

Du Pont Plans $4 Million Expansion

Du Pont Co. of Canada (1956) plans a further $4 million expansion of its Maitland, Ont., and Kingston plants.

This will bring to more than $12 million the value of expansions at these two sites announced within a year.

About $3 million in the latest project will be spent at Maitland where a fourth boiler and stack will be installed in the power house which serves plants producing nylon intermediates, Orlon acrylic fibre and Freon fluorinated hydrocarbons.

In addition, process improvements and increased capacity for the production of nylon intermediates are planned.

About $1 million will be spent at the Kingston nylon spinning plant, principally for expanded warehousing and shipping space.

The work will begin immediately, with completion scheduled for Dec., 1958.

In April the company announced a project of more than $7.5 million at the sites to raise capacity for production of heavy-denier nylon yarn used by the tire cord industry and to provide for the growing needs of the textile industry.

Griffin Steel Plans New Plant

Griffin Steel Foundries Ltd., St. Hyacinthe, Que. is going ahead immediately with plans for a second Canadian plant at Transcona, Man. for the manufacture of EQS cast steel wheels for railroad freight cars.

Negotiations between the company and its parent in Chicago, **American Steel Foundries**, have been proceeding with greater Winnipeg Industrial Commission for a number of months.

Griffin Steel will use a new process developed by another American Steel subsidiary in Chicago. The new plant will have capacity for production of about 100,000 wheels a year and is slated for operation in the latter part of next year.

American Steel Foundries is one of the largest producers of steel castings in the U. S., and, through **International Equipment Co.**, Montreal, has been supplying specialty steel castings, brake equipment and other components to Canadian railroads for more than 30 years.

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UBC Seeks $5 Million For Building

University of British Columbia has announced a $5 million "Development Fund" campaign to begin early in 1958. The provincial government will match contributions dollar for dollar.

General chairman of the campaign is Paul E. Cooper, executive vice-pres., **Sandwell & Co.** and former president, **Crown Zellerbach (Canada)** will be chairman of the fund; and Howard Walters, vice-pres., **Pleasant Valley Gas and Oil Co.**, vice-chairman.

Enrolment at UBC last year was 7,623; this year it's expected to top 8,200. It's estimated that it will need $25 million for new buildings over the next 10 years.

This estimate is based on current B. C. figures of population increase, the rise in per capita income, and the growing demand for higher education.

Of this, the B. C. Government has so far agreed to provide $15 million—$10 million outright, to be spread over the next 10 years, and $5 million by matching the Development Fund.

Honorary chairmen of the campaign are Dr. A. E. Grauer, chancellor-elect, and Hon. E. W. Hamber, chancellor-emeritus.

Patrons are Hon. Frank M. Ross, lieutenant governor; two former lieutenant governors, Hon. Clarence Wallace and Hon. Charles A. Banks; Hon. Gordon McG. Sloan, Chief Justice of B. C.; Hon. Sherwood Lett, Chief Justice of the B. C. Supreme Court; and the premier, Hon. W. A. C. Bennett.

University committee which will maintain liaison with the campaign committee includes Dean Geoffrey Andrew, chairman; Deans E. D. MacPhee and Walter Gage; Professor J. J. Deutsch, Dr. W. C. Gibson and Aubrey Roberts.

New Executive Placement Plan For Europeans

A Dutch university is setting up a Canadian organization which will operate an "executive placement" service in Europe for Canadian employers.

The organization, **International Public Relations Agency**, will "scout" the European labor market for men to match given specifications.

IPRA will use the facilities of its parent university, Independent Faculty, Amsterdam, and will use screening techniques similar to those used by Canadian executive placement concerns. Address of IPRA is P. O. Box 179, Burlington, Ont.

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ANNOUNCEMENT

Canada Permanent Director

ALLEN T. LAMBERT

Hon. T. D'Arcy Leonard, Q.C., President of The Canada Permanent Trust Company, announces the election of Mr. Allen T. Lambert, Toronto, to the Board of Directors of the Company. Mr. Lambert is Vice-President and General Manager of The Toronto-Dominion Bank and a Director of Canadian Equity Insurance Co. Ltd., and Toronto Mental Health Clinic.

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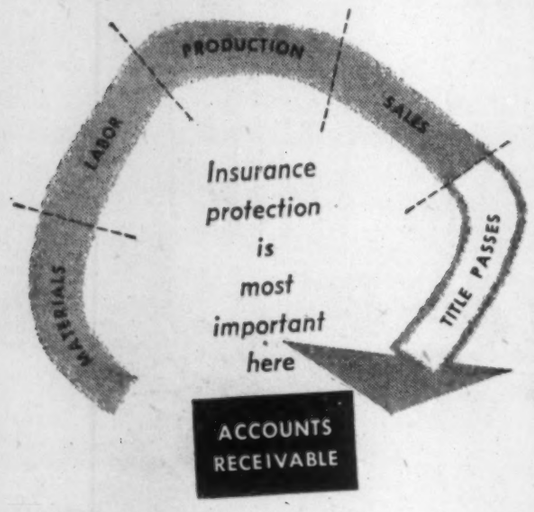

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Industrial Growth

Manufacturing plants new to Canada, expansions of existing industry across the nation

Areas, industries are invited to report their progress in this column.

Tonic In Sales

Not many manufacturing industries can claim record-breaking output and sales these days and with no signs of the demand leveling off.

But that's the distinction presently enjoyed by producers of asphalt and vinyl-asbestos floor tiles whose shipments currently are running substantially ahead of year-ago levels after an equally substantial increase in business last year.

And to keep pace with the rising demand, there has been a steady round of expansion among the manufacturers involved. Latest entry to the field has been that of the old-established **Dominion Oilcloth & Linoleum** which started producing the vinyl-style tiles about a year ago, is now shipping them across the country, and may go in for production of asphalt tiles later.

Recently, another of Canada's main manufacturers in this field, **Flintkote Co. of Canada**, increased its tile plant capacity by about 60% and, prior to that, there had been similar developments by **Building Products Ltd.** and **Armstrong Cork Canada Ltd.**

And here are some reasons:

—Linoleum is still selling above its level of some years ago but it has not maintained its proportionate share in a growing market.

—An aggressive policy in marketing and in development of the color and quality ranges of floor tiles has met with considerable success.

—Recent spurt in office, school and other major building has opened up new markets while the trend to floor tiles in certain sections of the home has increased.

At least two of the companies regard the floor tiles as complementary to linoleum. That's why they have gone into tile manufacture while maintaining linoleum as their main production line.

Another reason for the general splurge in tile production would be cost. It's reckoned that plant to make asphalt and vinyl-asbestos tiles would require investment of the order of $3 million or $4 million while a linoleum production operation could swallow up $20 million.

Latest DBS figures on shipments show that asphalt ⅛-in. basis was up 17.1% at 12,262,317 sq. ft. for the first seven months of this year, following a 21.2% increase in 1956 over the previous year.

But vinyl-asbestos was well ahead even of those figures. Shipments for seven months this year are 56.5% up on the same period last year at 10,837,369 sq. ft. For the whole of 1956 at 13,723,658 sq. ft., they were 37% ahead of 1955.

• • •

Tools For Industry

A major U. S. industrial group which already has one manufacturing operation in Canada, has taken preliminary steps to set up another major investment here.

Houdaille Industries Inc. with diversified industrial interests in the U. S. and parent of **Houdaille Industries Ltd.**, Oshawa, Ont., has bought acreage at Brampton, Ont., as a factory site for a new company, **Strippit Tool & Machine Ltd.**

The new company will manufacture a broad line of patented design punches and dies and allied automatic equipment used principally in sheet metals fabrication. Houdaille states that completion of the program now under consideration for the Brampton venture will reach a total of close to $2.5 million. It plans to proceed as quickly as possible with foundation bearing tests, architects' plans and letting of bids for plant construction, machinery and equipment.

Meanwhile, Strippit Tool & Machine has leased sales quarters in Brampton and will continue to supply customers through **Wales-Strippit Co.**, the Akron, N.Y., unit of Houdaille Industries Inc.

Board chairman of the new company is President Ralph F. Peo of Houdaille Industries Inc., and among other members of the seven-man board of directors are Wilfred R. Binch, Q.C., senior partner of **McMillan, Binch, Stuart, Berry, Dunn, Corrigan & Howland** of Toronto; Neil P. Petersen, who is president of Metropolitan Toronto Industrial Commission and a director of various companies in Canada; and F. J. Skinner, president of Houdaille Industries Ltd., Oshawa.

The Oshawa company is a major producer of auto bumpers and railroad car steel flooring.

• • •

B. C. 'Phone Centre

Construction has started on Vancouver's newest major downtown building project on Seymour Street north of Robson. A giant scoop shovel is preparing the way for a 12-storey addition to **B. C. Telephone Co.'s** William Farrell Building.

Smith Bros. and Wilson Ltd. were awarded the $4.5 million contract. Architects are **McCarter, Nairne and Partners.**

The new extension, to be finished in early 1959, will add 176,000 sq. ft. of floor space to a similar area contained in the existing building.

In addition to headquarters staff, the enlarged B. C. Telephone Co. centre will house plant and engineering forces as well as a new long distance switchboard, microwave equipment, a television control centre and automatic equipment for much of downtown Vancouver.

• • •

Third Growth Spell

Brydon Brass Mfg. Co., Toronto, major manufacturer and supplier of marine equipment, announces the start of construction of a new 7,000 sq. ft. addition to its Weston Plant. This will increase the manufacturing and warehouse facilities to over 30,000 sq. ft. under one roof.

The present building contains facilities for metal production, including designing, non-ferrous foundry, machine shop, tool and die shop, polishing and electro plating. The new addition will provide extra warehousing and dealer showroom facilities.

Besides manufacturing "Brydon Boy" marine equipment for Canadian and export markets, other equipment manufactured by the company includes a builders hardware line of kick plates, push plates, guard bars, door pulls and chrome railings. The company also designs and produces custom brass work, electro plating, stampings and non-ferrous castings.

This is the company's third major expansion in eight years.

• • •

New Home Ideas

The exhibition of the Canadian Housing Design Council awards at The Building Centre, Toronto, is winning a lot of attention.

The show consists of 31 panels, each with photographs, a plan and a short descriptive history of the award winners.

The first Canadian Housing Design Council national awards were given in Ottawa last April. The council, established in May, 1956, has set up regional and national housing design awards to function on a continual annual basis.

The Council bases its judgment on the results obtained from modern consumer research techniques. Two pilot surveys were made this year to learn just what makes a house desirable to the people for whose income and living habits it is designed.

• • •

First In Canada

Now building on a ten-acre site near Oakville, Ont., is the first plant in Canada of **Pennsalt Chemicals Corp.**

As a component of **Pennsalt Chemicals of Canada, Ltd.**, a wholly-owned subsidiary, the new unit will facilitate the distribution of Pennsalt chemical specialties not now available in Eastern Canada and will make possible the extension and improvement of customer services.

Initial product lines will include metal processing chemicals, sanitizing agents used in food processing and dairy plant operations, laundry and dry cleaning chemicals, and numerous other Pennsalt and "Sharples" brand specialty products.

In addition to its modern blending and materials-handling equipment, the new unit will provide warehousing facilities and offices for administrative and sales personnel.

The one-story, brick structure is expected to be completed in December 1957. **Cooper Construction Co.** of Hamilton, is the general contractor. G. E. Wood of Pennsalt's central engineering department has been named project engineer.

William B. Billingsley, formerly associated with **Canadian Industries Ltd.**, and director of company sales in Eastern Canada since 1954, has been named vice-president and resident manager of Pennsalt Chemicals of Canada. Albert H. Clem, general manager of Pennsalt's chemical specialties division, will serve as vice-president and general manager of the new subsidiary from corporate headquarters in Philadelphia.

• • •

School Term Deadline

A ten-room school built in a little over two months.

That's the record of one of Ontario's fastest-built schools which was pushed forward to meet the opening of term at the start of this month.

Its name: Princess Anne Public School, London. Architect was **R. D. Schoales** and contractor was **Foundation Co. of Canada.**

Work was started by Foundation Co. last June 24. Failure to meet the school term deadline would have meant a nearby school adopting a shift system to accommodate children.

But the job was finished in time. The administration, mechanical and kindergarten departments were completed by Foundation within two weeks after school opening while the classrooms were occupied.

The 15,800-sq.-ft. building is of structural steel frame and has a radiant heating system under concrete floors.

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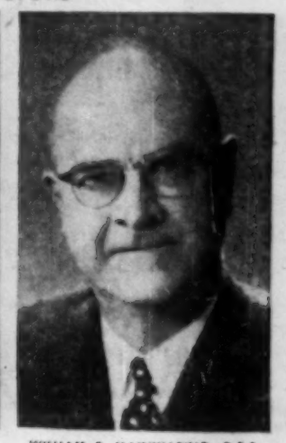

WILLIAM C. MAINWARING, O.B.E.

Following a meeting of the Board of Directors of Imperial Investment Corporation Ltd. early this month, Mr. Peter Paul Saunders, President, announced the election of Mr. Peter Nesbitt Thomson and Mr. William C. Mainwaring to the Board of Directors of the Corporation.

Mr. Thomson is Vice-President and Managing Director, Power Corporation of Canada Ltd.; Executive and Director, Nesbitt, Thomson and Company Ltd.; Vice-President and Director, The Warnock Hersey Company Ltd.; Director, Canadian Car and Bus Advertising Ltd.; Canadian Oil Companies, Ltd., Canadian Celanese Ltd., Bathurst Power and Paper Company Ltd. and in addition is a Director of other major companies.

Mr. Mainwaring is Vice-President, B. C. Electric Company Ltd.; President, Western Development and Power Ltd.; President, Yan-Tar Oils and Explorations Ltd.; Director, Royalite Oil Company Ltd., Deeks-McBride Ltd., Alberta Distillers Ltd. and Union Steamships Ltd. He is a member of the Advisory Board of the Royal Trust Company and is affiliated with other companies.

CITY OF CHICOUTIMI, Que., School Commissioners have sold $305,000 5½% 15-year serial debentures to a syndicate headed by **Banque Canadienne Nationale** and **Casgrain & Cie** for 95.57, indicating a net cost of 6.3405%. The 1972 maturity includes a balance of $55,000 to be renewed for five years. Proceeds are for purchase of land and construction of a 12-classroom school.

MUNICIPALITY OF LA MALBAIE, Que., School Commissioners have sold $344,000 5½%, 20-year serial bonds to **J. F. Simard & Cie**, at 97.52, indicating a net cost of 5.946%. Proceeds are for the construction of a girls' convent.

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ANNOUNCEMENT

INTERNATIONAL EQUIPMENT APPOINTMENTS

W. O. HORWOOD

E. A. BULLOCK

Allan H. Campbell, President of International Equipment Company Limited has announced the appointment of William O. Horwood as Vice-President, Sales, Napanee Division, with headquarters at I.E.C. offices, 90 Bates Road in Montreal. Mr. Horwood, who is a graduate of McGill University in Mechanical Engineering, was formerly with the Aluminum Company of Canada and Lyman Tube and has had wide experience in both manufacturing and sales. Prior to his recent appointment he was Eastern Sales Manager of the Industrial Division of I.E.C.

E. A. Bullock is appointed Manager, Special Projects, Railway Division, with headquarters at I.E.C. head office in Montreal. Mr. Bullock served his apprenticeship with Canadian Pacific Railways. Prior to joining I.E.C. he was Superintendent (diesel) with Montreal Locomotive Works and Superintendent Motive Power of the Quebec North Shore and Labrador Railway. His background in maintenance and manufacturing of railway equipment qualified him for the position of Service Manager of I.E.C. which he held prior to his recent appointment.

International Equipment Company operates plants at Montreal and Napanee, Ontario, and offices and warehouses are maintained in Montreal, Toronto, London, Winnipeg, Regina, Calgary, Edmonton and Vancouver.

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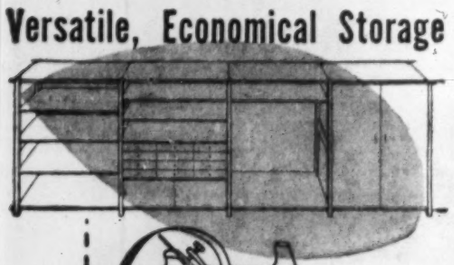

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Letter from London

by Adelphi

Bacon in the Fire

This is the time of the year when stock-brokers normally throw off the inertia of the summer holidays and get down to business but there is precious little doing on the exchange.

Oils are no longer the answer to the investors' prayer, there is no life in newspaper or newsprint shares, gilt edged have been on their knees so long that we cannot imagine them in any other position, and automobile shares just refuse to start climbing.

Even the report on homosexuality which I mentioned last week has ceased to excite the press and the public.

I doubt very much that Parliament will accept the report but will undoubtedly put in effect the recommendations dealing with soliciting on the streets by prostitutes.

That is a scandal which has bothered London for far too long.

It is not without interest that Henry Kerby, the Tory MP who acted as interpreter during the visit to Britain by Messrs. Bulganin and Krushchev, has been invited to visit Moscow.

Kerby is a rough and tough fellow who adventured many times behind the Iron Curtain in the years following the war.

It is not possible that this fact would be unknown to the Russians.

U. S. Policy Is Welcome

Naturally Prime Minister Macmillan welcomes the stiffening of U. S. policy in the Middle East.

It is part of the world tragedy that U. S., which has not yet completely done away with its traditional policy of isolation, seems temperamentally unable to deal with any problem until it assumes the size of a crisis.

Nevertheless we in Britain would be less than grateful if we did not admit that the very existence of U., S. is essential to Britain's survival and that when the great Republic does act it is with a giant's strength.

Before we discuss the subject I must report that Bulgaria has sent its National Ballet to entertain us at the Festival Hall.

On your behalf I attended the opening night but, like a coward, departed at half time.

So heavily adorned and clothed were the young ladies that they did not even expose an ankle, much less a leg.

The dance music was supplied by an orchestra of Bulgarians which produced a sort of Scottish - Morocco drone accompanied by tum-tum drums.

It was innocent, old fashioned and I am glad to report that the dancers looked happy.

* * *

Last week I described the fury and the glory of the air display at Farnborough which, incidentally, ended in such vile weather that the program of aerobatics could not be carried out.

But now comes the announcement that the BOAC is running into a deficit after five years of profit making.

One of the reasons is the delay in the delivery of the Britannias and the inevitable disorganization that resulted.

But that is not the whole story. It is the same old pattern of costs rising faster than revenue.

It is a recognized fact that the narrowing margin of profit is confronting every air line.

BOAC, in order to keep its place, is re-equipping with turbojet and turboprop aircraft which will take practical form in the next two or three years.

The easy solution is to raise the price of fares but the decision of the American Civil Aeronautics Board against a 5% increase in transAtlantic fares this year has made the solution less simple than might appear.

* * *

Minister With Common Sense

Incidentally when I went to the airport to say good-bye to a young relative who was flying to Montreal I found Mr. Heathcoat-Amory, our minister of agriculture, enjoying a glass of sherry in the VIP lounge which has all the simple elegance of an exclusive club.

He is not a spectacular personality but possesses a lot of common sense. I only hope he will not try to sell you wheat.

* * *

In European affairs the shadow of Hungary lies deep and dark upon the continent. The Russian rulers have to strike a balance between the uprising and the final result.

There is the undoubted fact that Russia was condemned as a murder nation by civilization but it was also demonstrated that the West was not prepared to go further than that. And by this time the Soviet is not unduly worried by moral denunciation.

Undoubtedly we are seeing a clear line-up of Russia and its satellite nations against Western Europe, Britain and the U. S.

Neither side wants a war on the great scale but there will be no real peace for years ahead. It is a grim picture but we would be unwise to pretend that the situation is not grave merely because there is no clash of arms.

* * *

Paper Upset Over Bacon

While we are on the subject of the arts — if films come under that heading — I must record that the Shakespeare - Bacon controversy has broken out again.

The reason of the outburst is that a couple of U. S. scientists have set out to prove that Bacon was the author of Shakespeare's plays and, because of his high position at court, used the name of Shakespeare as a disguise.

This so angered the Sunday Times that its chief columnist "Atticus" put Bacon into the box to face an imaginary cross - examination which, while wholly imaginative, was based completely on fact.

Here it is:

Q. Lord Bacon, is it true that when you were in high disfavour the Earl of Essex urged the Queen so earnestly to appoint you Attorney General that he antagonized Her Majesty?

A. That is true.

Q. Is it a fact that your financial plight was so desperate that Lord Essex made you a present of £1,800?

A. He did.

Q. When Lord Essex had embarked on adventures which were to end in a trial for treason did you agree to act for the prosecution?

A. I advised him against his adventures.

Q. Answer the question. Did you or did you not agree to prosecute your benefactor?

A. I did.

Q. Is it true that when the Solicitor General was making a poor case against Lord Essex you twice took it out of his hands so that you could make certain that your benefactor would be sentenced to death?

A. I did my duty as a lawyer.

Q. And as a friend?

A. I have no friends.

Q. Did you or did you not write these lines in a play called "Romeo and Juliet," and attributed to William Shakespeare:

But soft! What light through yonder window breaks?
It is the East, and Juliet is the Sun!
Arise, fair sun, and kill the envious moon,
Who is already sick and pale with grief.

A. I may have done. I cannot remember.

If, after that, any man can imagine that Bacon wrote the lovely nonsense of Mid-Summer Night's Dream or the moving tragedy of Hamlet, he ought to consult a psychiatrist as swiftly as possible.

* * *

There is deep interest over here in the Queen's visit for the opening of Parliament at Ottawa.

It will be a splendid moment in the history of the British family of nations and I am certain that your reception and enthusiasm will equal that of France a few months ago.

There are hints here that Prime Minister Diefenbaker might even discuss with Her Majesty the possibility of the Queen Mother being invited to accept the post of Governor-General at Rideau Hall.

At any rate Ottawa will be big news this autumn.

J. EDOUARD SIMARD

vice-president and director, Marine Industries Ltd., president Sorel Industries, and chairman Sicard Inc. etc. has been elected a director of Howard Smith Paper Mills Ltd.

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Mr. M. R. Blake, Systems and Electronics Consultant of the Electric Reduction Company

Chemical company enjoys new "automation age" efficiency with Bell Teletype

MR. BLAKE says: "As producers of some sixty chemicals, this company feels that maximum cost-cutting efficiency and customer service are modern 'musts'. To communicate large quantities of data rapidly (such as sales orders and purchase orders) between our Toronto headquarters and our branches across Canada, we now use Bell Teletype Service and the punch-tape system of integrating and processing data."

A few of the many ways in which Electric Reduction Company benefits:

1. DUPLICATION ELIMINATED—permanent tapes eliminate duplication of work in the processing of the large number of purchase orders.
2. BIG SAVINGS—where processing of sales orders formerly took two or three days, they are now processed daily.
3. HAPPY CUSTOMERS—fast, accurate communications link shipping and delivery points—result in improved service, a minimum of costly delays and freight car rental costs. Expensive shipping errors are also prevented.

This versatile set, giving various combinations of tape punching, page typing, and manual and automatic transmission, has met with broad acceptance as a basic tool in IDP systems.

Miss V. K. O'Toole at the teletype composite set

THE BELL TELEPHONE COMPANY OF CANADA

construction by CARTER

THREE RIVERS GRAIN and ELEVATOR COMPANY LIMITED, Three Rivers, Quebec

Consulting Engineers
C. D. Howe Company Limited
Port Arthur - Montreal

A storage annex and workhouse with the capacity of 1,900,000 bushels has just been completed by Carter.

These were built by the slip form method using hydraulically operated jacks. The original workhouse and storage units were built by Carter-Halls-Aldinger in 1936.

The true measure of a company's worth is a satisfied client.

Three Rivers Grain and Elevator Company Limited has been a Carter client for over 20 years.

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What's New

New products, new uses, new ideas, new money-makers. We report them here and invite your contributions. Write to 481 University Ave., Toronto.

One-Man Reactor

For $55,000 you can buy a small-scale nuclear reactor that one man can work. Intended for laboratories and schools, it is 8 ft. high and 8 ft. diam. Protection is by lead shielding in water.

* * *

If It Leaks

And for $185 from another company in the U. S. comes a transistorized meter that measures and records radioactivity. It's also designed for laboratories, works for 150 hr. on flashlight batteries.

* * *

New Bandage

Leading manufacturer of surgical dressings in the U. S. claims to have made conventional roll gauze bandage "obsolete" with the introduction of a new sterile, self-fitting, non-slip gauze bandage. Its ability to stretch is said to be half as much again as ordinary bandage.

* * *

Electronic Exchange

The latest electronic telephone exchange is said to be cheaper to produce than the conventional electro-mechanical type. One made by a U. K. firm has no moving parts, can handle 25 lines. Larger machines are being developed.

* * *

Brakes Won't Fade

Another German firm claims to be making a plastic additive which, when mixed with conventional substances in the manufacture of auto brake linings, makes them fade free. However hot the brakes get, their friction quality is said to remain unchanged.

* * *

Folding Car

Now in prototype stage is a light-weight folding car made by a British aircraft manufacturer. It is reported that four men can assemble it ready for use in one minute. Engine is air-cooled, two-cylinder, with 39 cu. in. displacement. Seats four.

* * *

Metal Sanding Disc

After many years of development a power tool company has produced a sanding disc that consists of a steel backing plate to which tungsten-carbide grits have been bonded by brazing. It's claimed to be easily kept free of clogging, to last very much longer than sandpaper. Five different grits are available and the price in the U. S., where it is made, is about $3.

Dynamo Flash

On the market now in Europe is a 6½ oz. flash gun that works with a built-in mechanical generator. All that is needed to use it is the setting of a lever. This is designed to provide sufficient current to a storage capacitor to ignite the bulb.

* * *

Four-Year Clock

Battery-powered clock, made in Germany, is said to last about 1,500 days. Great accuracy is claimed for it since the power supply does not fluctuate in intensity and every effort has been made to insulate it from temperature changes. Case is of handcut glass and polished brass.

TRANSISTORS are used in this RF broad-band probe. See Latest Probe.

* * *

Latest Probe

A new design of broad-band RF probe is completely transistorized. Powered by batteries, it has a transistorized feedback amplifier to ensure complete stability. Features include low input capacity, no hum and open design for easy manipulation.

* * *

Threaded Insert

For making strong attachments to such materials as wood and fibreboard there's a self-tapping carbon steel insert that can be installed with standard drilling and countersinking tools. It's claimed to provide threads that are almost strip-proof.

* * *

New Booklet . . .

. . . from **Canadian Westinghouse Co.**, (Electronics Div.), Longwood Rd., Hamilton, Ont., a new two-color booklet that describes research and service facilities available to industry in Canada.

World's Top Airlines Seek Fares Increase to Survive

MONTREAL (Staff) — Last week a spokesman for the majority of the world's airlines made a strong plea for increased fares.

The site was Madrid where the presidents and senior staff members of 79 air carriers met for the 13th annual general meeting of International Air Transport Association.

On the surface the airline business appears to be flourishing. Last year the lines carried 58 million passengers and are expecting to make it 100 million by 1959 at the latest.

The blue riband North Atlantic traffic jumped 20% during 1956 with a total of 835,000 passengers and the present rate of increase promises a million by next year.

Cargo and mail traffic rose 13% and 8% respectively.

Yet in many ways things have never looked bleaker for the airlines since they started their post war record breaking race.

Sir William Hildred, IATA Director General, told the assembled members that preliminary figures for all the lines show the operating margin last year slid to a slim 1.5% (2.6% the year before).

That meant that the world's airlines after meeting operating expenses of $3.3 billion had only $50 million left to meet the host of new costs of the coming jet age.

Thinner Cut

Indications are that 1957 figure—plagued by increased landing fees in many countries and greatly increased fuel costs following the Suez affair—will see the margin cut even thinner.

The much discussed jet age—with single aircraft costing $5.5 million each—has brought many carriers to the point where the cost of new equipment on order is equal to their gross annual operating revenue.

Hildred made no secret of his concern. "These figures illustrate a condition that is currently endemic in the airline industry," he told the meeting. "We have no room to turn, and we are caught in the great financial squeeze."

Hildred diagnosed airline's troubles as the result of a "continuation of rising costs, extensive capital commitments and frozen fares," but pointed out that the normal business remedies are not open to the airlines "because they are not in a position to control the price of their product."

Asserting that a policy of "regulation by evisceration" practiced by some governments has kept the airlines from attaining an adequate level of earnings.

Hildred continued: "In the last year in particular, the relentless forces of inflation have again got under way and, regretfully but in accordance with sound business principals, we tried to pass on this increase to the users of air transport.

"We have not been allowed to do so and we have had a lot of figures thrown at us to show why we do not deserve it.

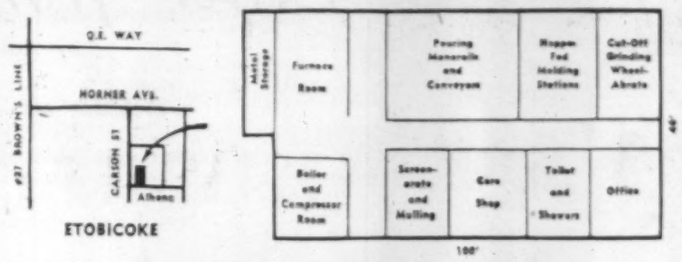
"We are not asking for a great increase, just a few percent at most," Hildred added. "This does not mean that we have set aside the policy of developing new low fares to attract the currently untapped strata of the travel market.

"But it does mean that we are trying to lift the whole rate structure just a fraction higher.

"That little fraction means all the difference in the world between an industry developing soundly and an industry floundering into deficit and in danger of having to fall back on public aid," Hildred warned.

Modern Non-Ferrous Foundry FOR SALE

CAPACITY OF 40,000 LBS. FINISHED CASTINGS PER MONTH



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On one acre of excellent land in a popular industrial area. This building, enclosing 5000 square feet, contains a clean, well-mechanized foundry with a single shift capacity of 40,000 lbs. of finished castings per month. This unusual opportunity is offered because of owners announced plans to greatly expand and integrate its Toronto operations. For further information, call or write.

MERSEY PAPER CO. has purchased for cancellation an additional 85 shares of its 5½% cumulative redeemable preferred stock, leaving 198,550 shares outstanding.

LAURENTIDE ACCEPTANCE CORP. since June 10 issued 10,000 shares on conversion of series A debentures, and 165 shares on conversion of series B debentures. There are now 175,957 class A shares outstanding.

Short Position Falls On TSE

Semi-monthly report of short positions on the Toronto Stock Exchange at Aug. 30, eliminating odd lots on members' books, aggregated 1,079,400 shares of 225 issues, compared with 1,142,155 shares of 238 issues at Aug. 15.

Among the changes were:

Stock	Shares	Stock	Shares
Abitibi	—400	Con. Sud.	—17,100
Aluminium	+750	Int. Nickel	+450
Belcher	+18,300	Int. Uts.	—200
B. C. Forest	+2,100	Sand River	+12,000
Calg. & Ed.	+800	Scurry R.	—13,500
Con. Reg.	—43,900	So. Union	+17,000

Here are the short positions in detail:

Stock	Shares	Stock	Shares
Abitibi	550	Inglis	100
Aconic	35,000	Inland Cem Pr	100
Do vt	5,800	Inspiration	1,200
Advocate	400	Int Nickel	2,550
Algom	1,400	Int'prov PL	25
Do wts	2,700	Irish Copper	7,500
Algoma	400	Iron Bay	4,600
Aluminium	850	Jacobus	36,200
Amalg R Earth	200	Jeanette	1,500
Am Leduc	2,000	Jellicoe	2,500
Anacon	500	Joburke	2,000
Anglo-Rouyn	2,000	Jowsey	500
Arcadia	11,600	Jump Pound	500
Area	2,900	Jupiter	2,600
Asbestos	200	Kerr Lake	5,500
Atlin-Ruff	32,500	Kilembe	300
Aumaque	500	Lk Dufault	13,900
Bail-Selb A	100	Lk Shore	8,500
Banff	700	Leitch	600
Base Metals	8,000	Liberal Pete	400
Beattie-D	19,800	Little L Lac	200
Belcher	66,700	Lorado	1,700
Bell Phone	75	Lyndhurst	2,000
Bethlehem	1,800	Maritimes	12,400
Bicroft	3,300	Macassa	100
Do wts	2,000	MacMillan B	300
Brazilian	100	Massey-Har.	1,700
Britalta	200	Maybrun	500
B. A. Oil	200	McColl	100
B. C. Forest	4,400	Medallion	7,000
B. C. Power	75	Merrill Pete	100
Brunhurst	1,000	Midcon	6,300
Brunswick	1,000	Midrim	5,400
Burchell	3,000	Milliken	9,000
Cabanga	1,500	Mng Corp	1,000
Cable	1,500	Mogul	2,200
Calgary & Ed	1,100	Nat Pete	1,600
Camp Chib	2,700	Nesbitt	1,400
Can Cement	100	N Brit Dom	4,700
Can S Oils wts	600	N Chamberl'n	4,700
Cdn Brew	25	N Delhi	5,600
Cdn Chieftain	300	N Gas	500
Cdn Devonian	900	Newlund	5,000
Cdn Dyno	4,600	N Minda-S	1,000
Cdn Homest	900	N Superior	200
Cdn Husky	500	Nickel Rim	21,200
Cdn Oil	100	Nipissing	1,000
CPR	300	Noranda	800
Cdn Petrof pr	500	Norgold	1,000
Can-Met	19,300	Normetal	5,200
Do wts	2,400	Norpax	40,400
Cassiar	900	N Cdn Oil	100
Cayzor	500	N Rankin	26,700
Cen Del Rio	2,600	Northspan	12,900
Cent Pat	400	O'Brien	500
Charter Oil	1,000	Ont Jockey	500
Chib Jaculet	6,900	Do wts	900
Chrysler	25	Opemiska	4,200
Cochenour W	6,500	Orenada	13,000
Cody-Reco	2,000	Pacific Pete	400
Coldstream	2,600	PCE Expl	2,100
Coniagas	4,300	Pardee	500
Con-Key	1,000	Pater	7,500
Con Denison	6,900	Peerless	500
Do wts	11,000	Permo pref	200
Con Fenimore	2,000	Perron	10,500
Do wts	500	Petrol	500
Con Halliwell	6,000	Placer	200
Con Mic Mac	200	Provo	1,500
Smelters	200	Que Chib	29,700
Con Morrison	500	Que Lab	500
Con Mosher	1,000	Que Lith	300
Con Negus	1,000	Queenston	3,500
Con Regcourt	6,300	Quemont	2,500
Con Sud'ry	123,200	Rayrock	800
Cop Rand	11,400	Rockwin	31,300
Corby vot	300	Roe A V	1,450
Cree wts	100	St Law Cem A	200
DeCour'y wts	1,000	Sand River	17,500
Devon	700	Scurry	4,900
Dom Stores	100	Security	3,200
Dupont	100	Sherritt	1,800
Duvan	1,000	Silver-Mig	5,500
East Sullivan	4,000	So Union	17,000
East Mining	1,000	Stanleigh	1,300
East Metals	1,000	Do wts	100
El Pen-Rey	1,000	Stanwell	10,600
El Sol	5,000	Starratt Nick	1,000
Eureka	1,000	Steel Co	25
Falconbridge	500	Steep Rock	5,700
Faraday	20,200	Superior Prop	100
Fargo	7,100	Sylvanite	6,300
Florida Can	7,800	Taurcanis	500
Ford A	25	Tombill	1,000
Frobisher	700	Trans Emp	100
Gaikeno	1,700	Trans Mount	325
Geco	3,900	Trans Prairie	75
Gen Motors	200	Triad	400
Glacier	1,600	Tribag	1,000
Golden Man	1,000	Ultra-Shaw	3,000
Granduc	1,000	Un Asbestos	39,300
Gt L Paper	150	Un Oils	13,200
Gunnar	400	Ventures	200
Hard Rock	800	Walker	300
Hd of Lakes	4,000	Wayne	1,000
Headway	500	W Maygill	1,600
Highland-Bell	300	W Decalta	200
Hollinger	200	Do wts	1,000
Home Oil B	100	Willroy	1,400
Hoyle	200	Wiltsey	13,400
Hudson Bay	675	Windfall	9,000
Imperial Oil	1,300	Wright-Har	1,000
Indian Lake	1,000	Total	1,079,400

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Successor to G.J.S. Series "A" Trust, established in 1931

1 North American Diversification
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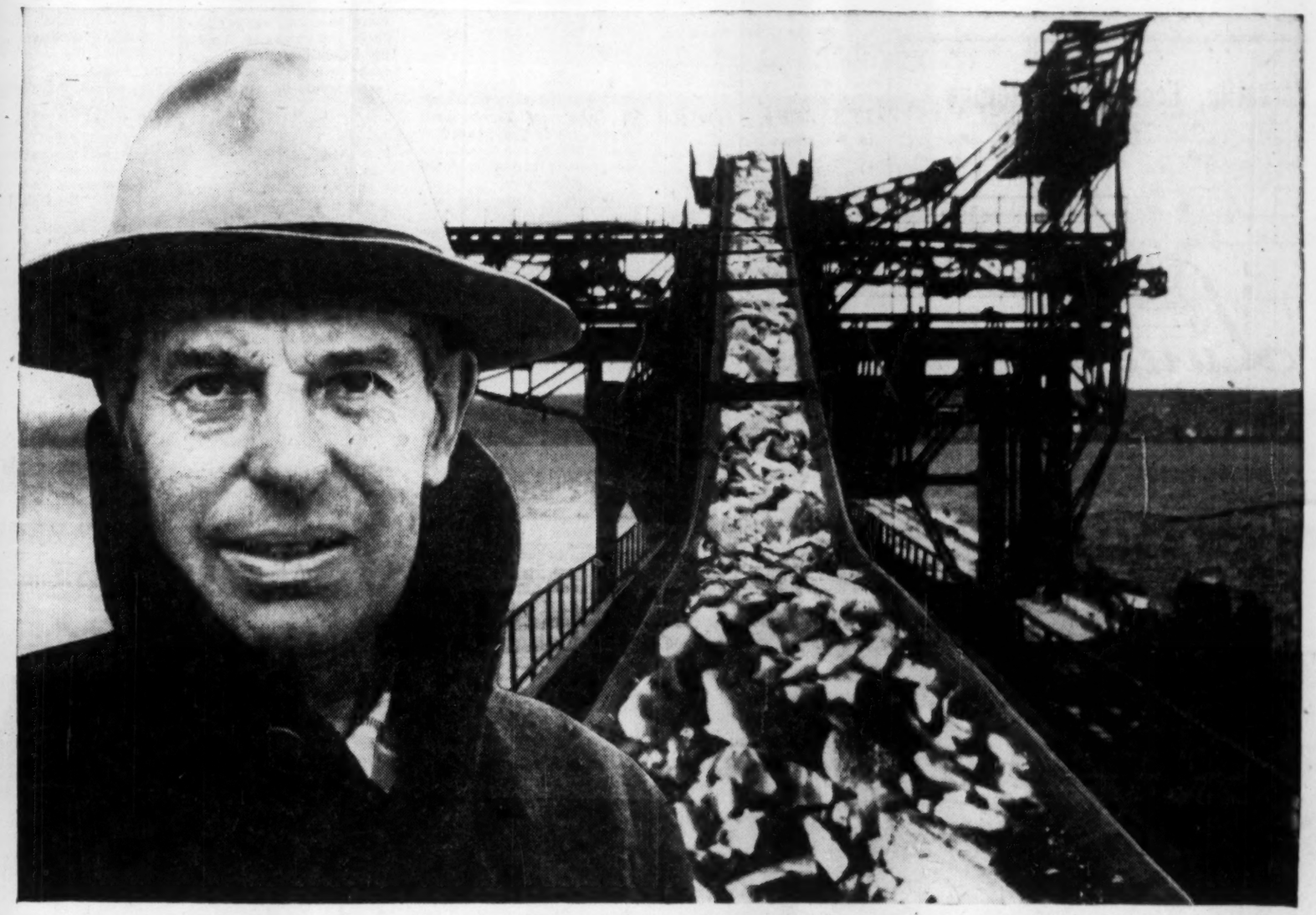
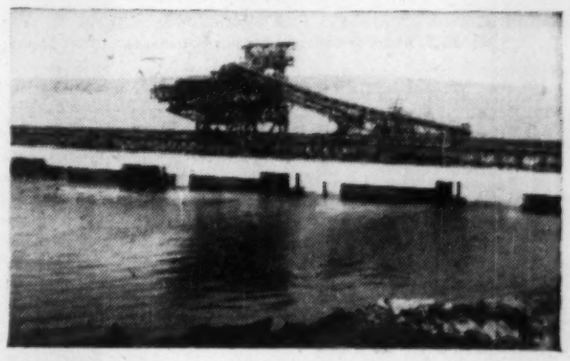
MEN WHO USE IT SAY . . .



Crushed gypsum, weighing 90 lbs. per cubic foot, is conveyed on this 1092-ft.-long, 60-inch-wide conveyor belt at National Gypsum's installation at Wright's Cove Dock. "Efficiency Brand" belting was used in this installation which must stand up to heavy abrasive loads in proximity to salt water.

"Gutta Percha conveyor belts are built to last longer . . ."

Canadian Industry must have conveyor belts that stand up to heavy abrasive loads . . . operate on a rigorous operating schedule in all climatic and natural conditions. Gutta Percha manufactures and supplies such conveyor belts to every branch of industry . . . right across Canada. Gutta Percha conveyor belts last longer because they are built better . . . by old hands with years of exacting experience, and the most up-to-date equipment.



Part of the new National Gypsum installation which used more than 4700 feet of Gutta Percha belting, ranging in width from 48" to 72".

GUTTA PERCHA CONVEYOR BELTING

... Another Reason Why GP GUTTA PERCHA & RUBBER LIMITED Means Versatility in Rubber

GP-6-57-F.P.

INDUSTRIAL PRODUCTS DIVISION — GUTTA PERCHA & RUBBER, LIMITED — 114 O'HARA AVENUE, TORONTO

The Financial Post

Vol. LI Publication Office: Toronto, September 21, 1957 No. 38

Will your city share in this boom ahead?

Canadian industry will spend $10,600 million on expansion over the next 10 years, says this special study.

Where will it be spent?

The study, released this week, looks at the reasons why industries move, or why they stay in one place and grow there, and what factors affect their decisions.

Those decisions can affect your community, your business.

By REX E. GROSE

A year ago the Provincial Governments' Trade & Industry Council (representing the industry-getters of our provinces) asked Rex E. Grose to make this important survey.

He was a "natural" for the big job.

Mr. Grose, Manitoba's deputy minister of industry and commerce, is one of Canada's leaders in business development. His work in industrializing Manitoba is internationally known.

He has appeared many times in FP's news pages, not only as a public figure but as an author of articles.

Summary

1 **The rate of capital investment** in Canada will probably increase substantially during the next 10 years. No one industry will dominate in the making of capital investments, although the heaviest expenditures will be made by the petroleum, iron and steel products and paper industries.

2 **Employment will also be considerably** higher in 1966. The iron and steel products, electrical apparatus and supplies, and transportation equipment industries will create the most new jobs.

3 **Ontario will be the focus of capital** expenditures already planned, followed by Quebec, British Columbia, the Prairie Provinces, and the Maritimes.

4 **A large percentage** — perhaps 50% or more — of the capital investment that will take place within the next 10 years has not yet reached the planning stage.

5 **Canadian executives are generally very well** disposed towards Canada as an industrial location. There is, however, dissatisfaction with federal taxes, tariffs, the inadequacy and cost of transportation, local taxes, labor wages, the lack of research facilities and the inaccessibility of foreign markets.

6 **Canadian firms overwhelmingly find their internal** facilities more useful than outside agencies in plant location decisions and in obtaining market research and production data.

To the extent that outside agencies are used, most reliance is placed on banks and provincial industrial development departments for plant location help and on the Department of Trade and Commerce in Ottawa and the Canadian Manufacturers' Association for market research and production statistics.

7 **The work of provincial departments of industry** and commerce is well known to slightly over one-half of Canadian senior executives. About the same number believe the departments are doing valuable work.

8 **Top executives now believe that provincial** departments of industry and commerce can have the most effect on industrial location through the provision of economic and engineering studies, accurate statistical data and market information.

9 **Of arguments in favor of decentralization,** the one that "decentralization minimizes the danger of involuntary shutdowns" found the most widespread acceptance.

Introduction

This report analyzes the replies to a questionnaire, entitled "Canadian Executives' Attitudes Toward Canada as an Industrial Location Country and Prospects for Development," submitted to Canada's leading business executives in secondary manufacturing.

The questionnaires, mailed in January 1957, were completed by company chief executives or persons designated by them. The respondent companies, presently employing approximately one-half million people, have an annual payroll of almost $2 billion.

They are distributed among all the major industry groupings compiled by the Dominion Bureau of Statistics with the exception of the "Tobacco and Tobacco Products" category from which the response was not sufficient to warrant tabulation.

A detailed breakdown of the DBS industry groups is presented on another page.

A tabulation, by industry, of the respondent companies and the proportion of each industry's capital investing power, based on 1956 experience, is presented in a table.

Questionnaires were sent to 1,063 company presidents and 425 replies were received. This response rate of 40% is particularly satisfactory in view of the confidential nature of the information requested and the length of the questionnaire.

The following six types of data were requested:

- **Projections of investment** during the next 10 years and employment at the end of 10 years.
- **Ratings of factors** such as "political climate" and "labor wages" as to whether they were important advantages, important disadvantages, or of little importance to manufacturing in Canada.
- **Ratings of nine classes of agencies** such as banks and provincial industrial development departments as to their usefulness in locating plants and as a source of market research and production data.
- **Detailed evaluations of provincial departments** of industry and commerce with specific reference to the ways in which they can be of most help in assisting industrial development.
- **Tests of the appeal of various arguments** advanced in favor of decentralization of industry.
- **Classification data** — industry, total annual salaries, and total annual sales.

Before embarking upon an analysis of the data developed from the questionnaires, a word of caution is necessary.

The responding companies, while very important in the Canadian economy, are by no means the sum total of Canadian industry.

This is clearly shown in the response table. Adjustments have been made for this in the 10-year projection of investment in Canada, but it has not been possible to make similar adjustment in other sections of the study.

There is also the problem of non-response to specific questions.

Non-response apparently stemmed primarily from two sources:

—Unwillingness to disclose what was considered the proprietary information despite the confidential nature of the questionnaire—18% of the companies responding declined to reveal annual sales and 15% declined to reveal salary totals.

—Unwillingness to project employment and investment figures 10 years into the future.

Approximately 25% of the responding firms did not answer these questions. The majority of firms returned completed questionnaires, however, and in the case of projected investment, it has been possible to adjust the data to correct for non-response.

Response Statistics

	Companies Responding	% of Industry's Investing Power Responding
Food and beverages	47	25.6
Rubber products	8	70.0
Leather products	8	6.8
Textile products	19	7.7
Clothing	19	5.6
Wood products	18	8.8
Paper products	22	20.0
Printing, publishing and allied industries	7	4.1
Iron and steel products	92	25.0
Transportation equip.	16	26.0
Nonferrous metal prods.	27	64.0
Electrical apparatus and supplies	50	41.0
Nonmetallic mineral products	18	38.7
Products of petroleum and coal	13	91.0
Chemical products	44	53.0
Miscellaneous	16	26.6

Ten-Year Projection of Investment and Employment

The first broad question at which this survey aimed was: Which industries are going to employ more people and spend more money?

In short, which industries should an area attempt to attract? The questionnaire asked for estimate of increases in employment and investment.

Companies were asked for their best judgment of their employment needs 10 years hence — included in this estimate,

(Continued on page 27)

Score Your Area's Industrial Potential

You Can Rate the Industrial Advantages of Your Own Province, City or District on this Special FP Score Sheet

Top executives in every industrial field across Canada have scored the whole country's "important advantages" to industry.

The higher the score, the more important the advantage to industry generally (not necessarily specific industries).

1. Cover up the executive score boxes.
2. Look at your area. Consider its advantages honestly. With 100 maximum marks for each advantage, enter your estimates for your area in the boxes at right.
3. If you're fair, you'll have a rough idea of how your area rates as a home for general industry.

EXAMPLE:
Take "Labor Skills." Examine these questions carefully: Availability of vocational training? Union attitude toward apprenticeship? Night courses at schools? Government interest? Present demand for skill-power? Start with 100 marks, deduct marks accordingly.

	EXECUTIVES SCORE FOR CANADA	YOU SCORE FOR YOUR AREA
Adequacy and Dependability of Power	87	
Industrial Climate	83	
Cost of Power	80	
Living Conditions	79	
Adequacy of Water Supply	77	
Labor Productivity	72	
Attitude of Community	72	
Location to Raw Materials	70	
Location to Markets	69	
Political Climate	68	
Labor Skills	68	
Labor History	66	
Labor Wages	59	
Adequacy, Cost of Transportation	59	
Laws on Manufacturing	54	
Local Taxes	38	
Access to Foreign Markets	35	

Note: These scores are not strictly comparable, and are intended only to give businessmen rough estimates of their community's potential as an industrial centre.
Score sheet compiled by FP from a survey by Rex E. Grose, deputy minister of Manitoba's industry and commerce department.

ANNOUNCEMENT

GATINEAU DIRECTOR

JACQUES De BILLY, Q.C.,

member of the legal firm of Gagnon & de Billy, Quebec, elected a Director of Gatineau Power Company, succeeding his father, the late Valmore A. de Billy, Q.C.

Science's Deadly 'Big Ifs'

How Nature Could Smash Civilization

By LEONARD BERTIN

IF the polar ice-caps were to melt the world's mean sea level would rise by more than 100 ft. Low-lying cities like Montreal, New York and London would be flooded.

IF another meteorite as big as some that have hit the earth in bygone ages were to land in Southern Ontario, Toronto, Windsor and Hamilton would be pulverized in a single blow more effectively than by any man-made hydrogen bomb.

IF the Gulf Stream were to change its routing to any major extent Canada's climate would change with it. Fish populations would move to new feeding grounds and some of the best existing fisheries would cease to be economic.

IF there were to be a large increase in atmospheric radioactivity as a result of increased use of atomic processes health would be endangered. It could also lead to the creation of an electrified "mirror" in the air at low level that would block all radio transmissions.

These are speculations that may seem at first like the wild ideas of science fiction.

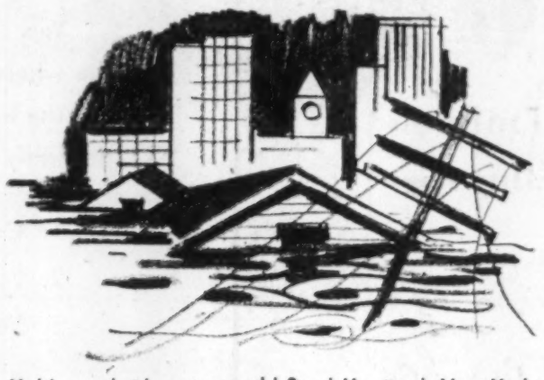
In fact — and it is a sobering thought — they are based on the views of eminent scientists among delegates of 52 nations who have been attending in Toronto the 11th general assembly of the International Union of Geodesy and Geophysics during the past two weeks.

Some, like changes in ocean currents, are already beginning to show themselves.

Others, like radioactive pollution of the atmosphere, will, we hope, be avoided by international agreement.

So far as meteorites are concerned, calculations have shown that while many millions of meteors bombard the upper atmosphere each day, only once in 50,000 years does one of catastrophic proportions hit the Earth.

One meteorite could wipe out Toronto, Hamilton and Windsor.



Melting polar ice-caps could flood Montreal, New York and London.

Meteor Scars

Recent investigations by scientists of the Dominion Observatory have shown that there are more scars of this meteor bombardment on the Canadian map than anyone previously imagined.

One of these, found by Dr. M. J. S. Innes at Deep Bay, Sask., is seven to eight miles in diameter, Dr. C. S. Beals, the Dominion Astronomer, told delegates.

That would make it four times bigger in diameter than the world's biggest, the Chubb, or New Quebec, crater. This is two miles across.

Two other craters that have recently been discovered by examining maps taken during the aerial survey of Canada are in Ontario.

One of them, near Brent, is two miles in diameter.

The other, near Holleford, is 1.46 miles across. Their minimum age is put at something like 500 million years.

All these are still classed as "probables" until drillings have confirmed their identity.

The present assumption that they were due to meteor impacts depends on their circular form and the similarity of their contours to lunar craters and confirmed meteor craters on earth like the Barringer in Arizona.

An increase in atmospheric radioactivity could block all radio transmissions.

In addition to a total of five probables, there are a further eight circular features that have been spotted on maps and photographs.

The smallest of these is a few hundred yards across. A real monster among them, which takes a large hunk out of Hudson Bay, is no less than 400 miles in diameter!

Dr. Beals told me that it had not yet been possible to examine these in detail, but it did seem likely that some of them, at least, had their origin in a meteorite collision.

How big would a meteorite need to be that could produce such a crater?

Scientists say it is difficult to give a precise answer, but Dr. Peter Millman of the National Research Council, an authority on meteors, compared it to Mare Imbrium, the "Sea of Showers" on the moon, which is 600 miles long and 400 wide.

It is estimated, he said, that this crater might have been scooped out by a "planetoid," or minor planet, possibly 10 miles across and traveling at 12 miles a second.

The energy produced when an object of these proportions and speed is suddenly brought to a halt by collision would be between 500 and 2,000 times as great as if it would be composed entirely of high explosive.

Sun and Science

Meteors apart, most of the matters discussed by 1,300 delegates and guests who attended the Toronto conference were "trends," the results of many hundreds of thousands of observations made high in the sky, in hundreds of observatories and research stations on earth and from survey ships on the oceans.

The nature and full extent of these changes, which could have a tremendous effect on the economics of daily life, are still not perfectly understood.

That is why scientists are so interested in them.

Take, for example, the tremendous storms that have been seen on the surface of the sun in recent months.

We know they affect us economically because they have been causing total black-outs in long-range communications.

Even the radio link between London and Johannesburg, South Africa, one of the hardest to break, has been out for whole days at a time.

The same solar storms, although they took place 93 million miles away, deluged the earth's atmosphere with X-rays and cosmic rays and provoked magnificent displays of aurora borealis, or "Northern Light."

They also jammed up the navigating instruments of aircraft, sometimes when they were most needed.

Effects of this sort can be measured with increasing accuracy as new instruments are developed and as man is able to probe higher and higher into the atmosphere and out into space with aircraft, balloons and rockets.

But scientists know there must be many more effects that have not yet been detected and have certainly not been measured.

For many of their answers they look to the sun, the centre of our own small part of the universe.

Our whole life depends on its behavior.

All the energy we use on earth, with the possible exception of atomic energy, is derived from the sun.

Any substantial increase in the amount of its radiation that reaches the earth would burn us up.

If all the ultra-violet, or "black light" that already reaches the upper atmosphere from the sun were to penetrate through to ground level instead of being absorbed, then man, and every living thing on earth, would be cooked as completely as any sausage under an electric grill.

Any major reduction in the amount of solar radiation reaching us, on the other hand, would cause everything to freeze. Life on earth would end.

Jungles in Canada

All these are safe assumptions.

But what no-one knows and all scientists would like to know, is what the effect would be of a **small** change.

Increased sunlight might have the obvious result, melting the glaciers and turning countries like Canada into tropical jungles that rivaled those of the Amazon.

It might, instead, produce so much cloud that this would in turn blot out the sun's rays altogether.

Scientists cannot tell us, either, what effect such changes would have on the ocean currents and on winds that now distribute heat from the tropics over other regions, that transport moisture from the oceans to water the land and that remove polluted air from over our cities.

Only recently have they been obtaining any accurate picture of movements of great masses of water deep down in the oceans as opposed to the purely surface currents.

No one knows yet whether it takes 100 or 10,000 years for deep water to travel from the Equator to the Arctic and back again.

Studies of this sort all come under the general heading of geophysics, a word that was hardly ever heard 10 years ago but which now, with the start of the International Geophysical Year on July 1, is on every tongue.

Geophysicists study all these changes in the behavior of the sun and the effects that they have on earth.

Although their language is often a series of ifs and buts and highly involved mathematical equations, and although the events that they study often appear to be very remote from our everyday life, any piece of information that they can collect could turn up trumps and prove to have an important economic application.

Most geophysicists are, in fact, rather practical people and might be described as scientists with their heads in the clouds but their feet planted firmly on the ground.

Fish Rush?

Geophysicists recently observed a trend that may bring Europe's fishing fleets crowding into Newfoundland waters and the Scotian Banks.

This could cause a big drain on our fisheries there.

Over the past 25 or 30 years surface temperatures off the East Coast have been moving steadily upwards, especially during the last five years.

Dr. H. B. Hachey, chief oceanographer of the Fisheries Research Board of Canada, says this caused the cod population to move northwards to the Greenland area, where it is now heavily fished by European and North American fleets.

Now, however, the temperature trend has been reversed and the waters on the East Coast are getting cooler.

If this happens to any extent, the fish will move back from Greenland again and the European fishing fleets may be expected to follow them.

Stock Exchanges Launch Campaign

MONTREAL (Staff) — The Montreal and Canadian Stock Exchanges will launch and advertising and educational campaign aimed at increasing Canadian ownership of the country's industry and resources through equity investment.

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What Industry Will Spend In Your Area

Projected Capital Investment Planned by Industry for the Next 10 Years

Based on a survey by Rex E. Grose. All projections adjusted.

Will Your City Share In This Boom Ahead?

(CONTINUED FROM P. 25)

of course, were the executives' estimates of their companies' growth, the possible impact of a shorter work week, and, working in the opposite direction, the impact of automation.

The result indicated that the largest anticipated increase would be in the iron and steel products, electrical apparatus and supplies, and transportation equipment industries.

Decreases for the textile industry and for the miscellaneous industry category were projected.

A complete tabulation of 1956 employment, anticipated 1966 employment, the anticipated increase, and the percentage anticipated increase for each industry is given in a table.

More detailed data was obtained concerning projected investment. Not only were total figures for Canada gathered, but, also, breakdowns for five areas: the Maritimes, Ontario, Quebec, Prairie Provinces, and British Columbia.

Of those companies participating in the survey, by far the most important expenditures were planned by petroleum firms. The non-ferrous metals, chemicals, iron and steel, and paper industries were also very important. A complete tabulation by industry is given here:

Investment Projections

Industry:	Projected 1957-1966 Investment ($000's)
Products of petroleum and coal	1,836,163
Non-ferrous metal products	624,175
Chemical products	466,070
Iron and steel products	416,475
Paper products	253,890
Transportation equipment	201,350
Food and beverages	167,945
Electrical apparatus and supplies	140,978
Rubber products	96,450
Non-metallic mineral products	87,690
Textile products	39,555
Wood products	34,032
Miscellaneous	20,615
Clothing	11,815
Printing, publishing and allied industries	11,500
Leather products	5,300
Total	4,414,003

As taken directly from the survey, however, these figures are somewhat misleading.

They show the capital spending plans of those companies participating in the survey only and gave no weight to the investing power of the rest of Canadian industry.

Because some industries were not so fully represented in the survey as others, their future spending is under-reported far more drastically than in the case of the more fully represented industries.

By relating figures supplied by respondents on their past spending pattern to the DBS figures on past spending for entire industries, it was possible to correct for the variations in industry representation in the survey.

On this basis, the adjusted investment figures are shown in this table:

Adjusted Investment Projections

Industry:	Projected 1957-1966 Investment ($000's)
Products of petroleum and coal	2,005,900
Iron and steel products	1,665,918
Paper products	1,269,375
Non-ferrous metal products	973,370
Chemical products	877,300
Transportation equipment	772,400
Food and beverages	645,750
Wood products	546,100
Textile products	514,820
Electrical apparatus and supplies	342,500
Printing, publishing and allied industries	280,300
Non-metallic mineral products	227,070
Clothing	211,396
Rubber products	137,715
Miscellaneous	77,540
Leather products	73,700
Total	10,621,154

Expected Expenditures Broken Down by Areas

How did these expected expenditures break down by area?

From this table it can be seen that Ontario was the leader, followed by Quebec, British Columbia, the Prairie Provinces, and the Maritimes:

Area Investment Projections

	($000's)
Ontario	4,729,586
Quebec	2,763,070
British Columbia	1,371,840
Prairie Provinces	1,105,876
Maritimes	650,782

For ease of interpretation, an integrated chart (adjacent) has been prepared which shows the 10-year projected investment for each of the five areas, by industry.

The total projected investment by manufacturers of $10.6 billion over the next 10 years must be regarded as extremely conservative.

This is true even though the total has been modified upwards to adjust for the many companies which did not take part in the survey as well as those which did but did not respond to specific questions.

The $10.6 billion figure grossly understates the capital expenditures that will actually be made since much of the capital investment that will take place towards the end of the 10 year period is not yet planned and is not reflected in the projection — which presents only **planned** expenditures.

A recent comparable study in the U.S. indicated that projected 1958, 1959, and 1960 investment was successively lower than 1957 investment — reaching 15% below 1957 by 1960.

From the point of view of a provincial department of commerce and industry, it is a healthy situation that many investments that will be made in Canada during the next 10 years have not been planned yet.

Such investments are probably fairly flexible in regard to location and may be susceptible to influences that an aggressive department can bring to bear.

Factors Rated as Important Disadvantages to Canada

Factor:	% of Respondents Listing as "Important Disadvantages"
Federal Taxes	43
Tariffs	32
Adequacy and cost of transportation	25
Local taxes	22
Labor wages	21
Research facilities	19
Access to foreign markets	19

Rating of Factors as Advantages or Disadvantages to a Canadian Location

The questionnaire was also designed to discover the factors of industrial location considered by Canadian industry to be most important.

This was done in the belief that the important factors, to the extent that they are controllable, might be given attention with a view to stimulating regional economic development.

One important fact stands out from this section of the survey:

Canadian executives were overwhelmingly in favor of Canada as a manufacturing location. The over-all "important advantage" percentages for the various factors that respondents were asked to rate are listed in a separate table.

On the other hand the survey also pinpointed some factors considered troublesome. The "important disadvantages" most often cited are listed in another table.

The belief that these factors were major disadvantages was not uniformly strong in all segments of Canadian industry but fell unevenly on the various industrial categories.

Tariffs, local taxes, and access to foreign markets were cause for concern to many industries but not to the rubber industry.

Labor wages were considered objectionable by the textile and wood products industries but not thought disadvantageous by the clothing and printing industries.

No company in the printing industry considered transportation an important disadvantage.

Inadequacy of research was not considered a problem by the printing and rubber industries.

The rubber industry, from an over-all point of view, seemed the most favorably disposed towards Canada as an industrial location.

Generally, industries fell into three categories in their total evaluation of Canada in this regard.

- **The first category** of those rating Canada very highly included, in addition to the rubber industry, the transportation equipment, clothing, nonferrous metal, and chemical industries.

- **Those industries forming a middle** group included food and beverages, textiles, paper products, printing and publishing, iron and steel, electrical apparatus, nonmetallic minerals, and petroleum and coal.

- **In the third category** of those least satisfied with Canada as an industrial location were leather products, miscellaneous industries, and surprisingly, wood products.

Factors Rated as Important Advantages to Canada

Factor:	% of Respondents Listing as "Important Advantages"
Adequacy and dependability of power	87
Industrial climate	83
Cost of power	80
Living conditions	79
Adequacy of water supply	77
Labor productivity	72
Canadian people	72
Attitude of local community	72
Location with respect to raw materials	70
Location with respect to markets	69
Political climate	68
Labor skills	68
Labor history	66
Adequacy of financing facilities	63
Labor wages	59
Adequacy and cost of transportation	59
Provincial and local laws which affect manufacturing	54
Tariffs	47
Research facilities	42
Local taxes	38
Access to foreign markets	35
Federal taxes	32

Within industries there appeared to be little or no difference in attitude towards Canada among companies of various sizes.

Thus, the relative dissatisfaction of companies in the leather products, wood products, and miscellaneous industries was about the same regardless of size of the responding firm.

Industries Most Dissatisfied with Federal Taxes and Tariffs

Industry:	% of Respondents Listing as "Important Disadvantage" Federal Taxes	Tariffs
Printing, publishing and allied industries	86	--
Leather products	62	50
Nonmetallic mineral products	56	--
Food and beverages	54	--
Electrical apparatus and supplies	46	--
Wood products	--	50
Textiles	--	48
Products of petroleum and coal	--	46

It is interesting to note that, either because of their dissatisfaction or perhaps arising from it, these industries — with the exception of wood products which is in the middle of the range — are all at the lower end of the scale, insofar as planned increase in investment and employment over the next 10 years is concerned.

Usefulness of Available Agencies in Plant Location and as Sources of Statistics

This section of the study was designed to determine — on the basis of existing executive attitudes — which agencies were held in highest regard and had the most influence on plant location decisions.

Executives were asked to rank, in order of helpfulness, nine agencies or types of agencies.

These nine were the Department of Trade and Commerce, Ottawa, the provincial industrial development departments, banks, railways, municipal and private development agencies, the Canadian Manufacturers' Association, Chambers of Commerce, independent factory location services, and the manufacturer's own facilities. Results are presented in this table:

Preference in Relocation Agencies

Agency:	By % Ranking It First
Own facilities	49
Banks	12
Provincial Industrial Development Departments	11
Municipal and Private Development Agencies	7
Railways	7
Department of Trade and Commerce—Ottawa	6
Canadian Manufacturers Association	3
Independent Factory Location Services	3
Chambers of Commerce	2

Of course, there was some variation among the industries in their preferences for various agencies. Leather products and textiles were exceptions to the general rule that manufacturers use their own facilities to determine plant locations.

Leather products favored banks, followed by provincial industrial development departments and independent factory location services.

The textile industry also preferred banks followed by "own facilities" and provincial industrial development departments.

A more-than-average preference for banks was expressed by members of the various rubber, printing and publishing, non-ferrous metal, and electrical apparatus industries.

Other supporters of the provincial industrial development departments included manufacturers of wood products and non-ferrous metal products.

In the matter of preferred sources of market research and production data similar figures to those on location were obtained. The results are presented in this table:

Preference in Market Research and Production Data Sources

Agency:	By % Ranking It First
Own facilities	33
Department of Trade and Commerce—Ottawa	23
Canadian Manufacturers Association	8
Independent Market Research Agencies	5
Provincial and Industrial Development Departments	5
Banks	2
Chambers of Commerce	2
Railways	1
Municipal and Private Development Agencies	1

As in the case of location information, some industries varied widely in preferred sources of market research and production data from the norm expressed in the table above.

Food and beverages and nonmetallic mineral products as well as iron and steel had apparently found the department of trade and commerce particularly useful.

Non-ferrous metals headed a group favoring the services of the Canadian Manufacturers' Association. Other such

(Continued on page 29)

Employment Projections

Industry:	1956 Employment	Anticipated 1966 Employment	Anticipated Increase	Percent Increase (Decrease)
Iron and steel products	92,800	140,600	47,800	51
Electrical apparatus and supplies	71,600	119,200	47,600	66
Transportation equipment	50,800	71,500	20,700	41
Food and beverages	55,100	72,800	17,700	32
Non-ferrous metal products	31,000	46,000	15,000	48
Chemical products	31,900	42,400	10,500	33
Wood products	8,100	14,300	6,200	76
Paper products	47,400	51,500	4,100	9
Products of petroleum and coal	29,700	33,400	3,700	12
Rubber products	15,200	18,700	3,500	23
Printing, publishing and allied industries	3,400	5,700	2,300	68
Clothing	9,000	10,700	1,700	19
Non-metallic mineral products	10,100	10,800	700	7
Leather products	4,200	4,500	300	7
Miscellaneous industries	11,300	10,800	(500)	(4)
Textiles	12,200	9,900	(2,300)	(19)
Totals	483,800	662,800	179,000	37

Projected Capital Investment Planned for the Next 10 Years by Industry and Area

Group and Industry:	Maritimes (adj.)	Ontario (adj.)	Quebec (adj.)	Prairies (adj.)	B. C. (adj.)	Total (adj.)
	($000's)					
Food and beverage products	18,750	213,000	153,000	127,000	134,000	645,750
Rubber products	500	128,500	5,430	2,000	1,285	137,715
Leather products	4,400	31,300	7,800	4,400	30,200	78,100
Textile products	.....	385,000	93,500	6,620	29,700	514,820
Clothing	.....	92,000	110,000	446	8,950	211,396
Wood products	11,400	292,000	31,900	33,800	177,000	546,100
Paper products	210,500	554,050	197,100	107,500	200,225	1,269,375
Printing, publishing and allied products	3,900	136,000	85,500	42,700	12,200	280,300
Iron and steel products	178,442	972,336	242,740	62,200	190,200	1,665,918
Transportation equipment	17,800	330,000	312,000	80,000	32,600	772,400
Non-ferrous metal products	3,530	94,500	670,000	7,340	198,000	973,370
Electrical apparatus and supplies	4,780	215,000	100,000	12,500	10,220	342,500
Non-metallic mineral products	13,100	93,500	61,500	55,000	3,870	227,070
Products of petroleum and coal	120,500	782,000	430,000	459,000	210,000	2,001,500
Chemicals and allied products	60,800	358,000	243,000	83,500	132,000	877,300
Miscellaneous industries	2,280	52,400	19,600	1,870	1,390	77,540
Total	650,782	4,729,586	2,763,070	1,105,876	1,371,840	10,621,154

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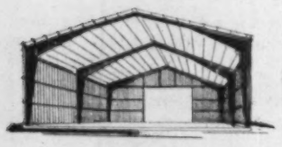

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ANNOUNCING

Important appointments in Canadian Industry, Finance, Business and Government

W. N. HALL

president and director, Dominion Tar and Chemical Co. and subsidiary companies, has been elected a director of Howard Smith Paper Mills Ltd.

Aerovox Canada Ltd. (Hamilton)—James Key, general manager to be director.

Alliance Paper Mills Ltd. (Merritton, Ont.)—G. E. Wilson, vice-president operations transferred from Merritton to executive offices Montreal; S. J. Quattrocchi, assistant general manager to be manager operations, continues to make headquarters Merritton.

B.C. Agricultural Consultants Ltd. (Vancouver) — J. C. Hackney, manager, appraisal department.

Builders' Exchange of Montreal and Building Trades Joint Committee of Montreal (Montreal)—Robert E. Nuth, sec.-treas., both organizations; was formerly senior assistant to general manager, Canadian Construction Association.

Building Centre (Toronto)—Sydney L. Cappell recently retired president, Philco International Corp., a director.

BullDog Electric Products Co. (Canada) Ltd., (Toronto)—Donald J. McIntyre, Mid-West Region Sales Manager, in charge, Manitoba, Saskatchewan and Alberta; Stanley J. Muloin, sales engineer for Alberta, with office at Edmonton, succeeding Mr. McIntyre, was formerly sales engineer with N. J. Dinnen Ltd., of Winnipeg.

Canada Permanent Trust Co. (Toronto)—Allen T. Lambert, vice-president and general manager Toronto-Dominion Bank, etc., to be director.

Canadian Celanese Ltd. (Montreal)—T. H. Hilliard, vice-president and manager, Drummondville factory, to be vice-president quality and mill cost control; W. M. Jones manager mill control to be manager Drummondville factory.

Canadian Kodak Co. (Toronto)—Lancey H. Thomson, with Eastman Kodak Co., for 21 years, to be assistant comptroller.

J. H. Crang & Co. (Toronto)—J. M. Taylor, formerly advertising director of The Telegram, to be supervisor of branches.

Dominion Brake Shoe Co. (Montreal)—A. Bennett O'Brien, western sales manager, railroad products, to be responsible for sales of railroad products manufactured by recently acquired Manitoba Steel Foundry Division plant, at Selkirk, in addition to former responsibilities.

Empire Life Insurance Co. (Kingston, Ont.)—A. P. Caron, supervisor of training and conservation, in Montreal Centre Branch.

Engineering Institute of Canada (Montreal)—Dr Garnet T. Page, formerly general manager and secretary, and manager of publications, Chemical Institute of Canada, Ottawa, to be an assistant general secretary.

Genaire Ltd. (St. Catharines, Ont.)—W. F. Delaney, to be projects engineer.

General Foods Ltd. (Toronto)—F. L. Wood to be director advertising and sales promotion; Anthony Z. Pengelly, product group manager, succeeding Mr. Wood; Ronald B. Rhodes, formerly with Colgate-Palmolive, to be product manager, responsible for all Jell-O products, succeeding Mr. Pengelly; Jack H. Owen, assistant product manager, to be product manager, for several products, including Minute Rice and Minit Tapioca.

General Steel Wares Ltd. (Toronto)—J. H. K. Lyons, a vice-president of the company, and also general manager McClary Appliances and Heating Division, London, Ont., to be director.

B. F. Goodrich Canada Ltd. (Kitchener, Ont.)—Fraser A. Muter, eastern zone sales manager, industrial products, to be field sales manager, industrial products division; Jack D. Cape, sales engineer, belting and hose, to be manager, belting and hose sales.

Howard Smith Paper Mills Ltd. (Montreal)—H. E. Mason, recently elected director, to be executive vice-president, succeeding E. K. Robinson, retired; G. H. Tomlinson, vice-president, research and development, also retires, both continuing in advisory capacity; W. P. Nesbitt to be manager Cornwall Division, succeeding H. E. Mason; C. L. Tomlinson to be assistant mill manager, was formerly general superintendent Cornwall mill.

Hospital for Sick Children (Toronto)—Dr. G. A. W. Currie, superintendent.

Industrial Life Insurance Co. (Quebec, Que.)—Roy Cantor, manager group insurance, Toronto division.

John Inglis Co. (Toronto)—E. B. MacRobie, formerly manager commercial engineering of air conditioning department of C.G.E., to be manager refrigeration and air conditioning division, succeeding G. R. Pritchard, who has left the company.

International Claim Association—John D. Kirkendale, claim manager North American Life Assurance Co. Toronto, member for one-year term of executive committee.

Kelvinator of Canada Ltd. (Rexdale, Ont.)—John Sinclair, formerly vice-president and assistant general manager, to be executive vice-president and general manager, and a director, following resignation of Reginald H. Line, as president and general manager and a director. Mr. Line continues in consulting capacity, for a period.

Laurentide Acceptance Corp. (Montreal)—Hon. Louis René Beaudoin, Q.C., former speaker of the House of Commons, director, Global Life Insurance Co. etc., to be director.

Marine Industries Ltd. (Montreal)—Ray Simard, manager new Calgary office, of heating division.

Moffats Ltd. (Weston, Ont.)—W. L. Hutchison, manager of manufacturing, to be vice-president in charge newly-formed industrial division.

Mutual Life Assurance Co. of Canada (Waterloo, Ont.)—Walter A. Bean, deputy general manager, Waterloo Trust and Savings Co., a director.

Miniature Precision Bearings Inc. (Keene, N.H.) — Arthur Starratt Torrey, president and general manager of W. C. Pitfield & Co., Montreal, and partner Hugh MacKay & Co., Montreal, to be director.

New Superior Oils of Canada Ltd. (Calgary)—John W. Gregg, formerly on teaching staff in petroleum engineering at University of Alberta, and a consultant on drilling, production, reservoir and evaluation problems, to be general manager and vice-president.

Nickel Rim Mines Ltd. (Toronto)—George L. Mill, formerly vice-president and general manager of South American Mines Co's., Canadian interests, to be vice-president.

A. C. Nielsen Co. of Canada (Toronto)—J. W. Linklater, manager field department, to be vice-president; R. H. Emond, formerly manager tabulating department, to be director, production development.

North Star Oil Ltd. (Winnipeg)—A. Havelock, vice-president and general manager; J. D. Macarthur, general sales manager; B. Pitcairn, operations manager to be assistant general manager; W. Dubesky, to be supervisor of refineries; W. R. Macarthur retires from active management of refineries but remains on board as vice-president.

Pye Canada Ltd. (Toronto)—J. P. Gordon, general sales manager.

Prudential Insurance Co. of America (Toronto)—J. F. Bridges, director of group sales and service.

Rio Tinto Co. (London, Eng.) and Rio Tinto Management Services (U.K.) Ltd.—Roy W. Wright, until recently managing director, Rio Tinto Mining Co. of Canada, etc., to be a director.

Richard Thomas & Baldwins (Canada) Ltd. (Toronto) — Kenneth J. Perkins, director and general manager; Kenneth R. Smillie, secretary.

Russell Co. of Canada Ltd. (Toronto)—Carl F. Morgenstern vice-president sales; Paul C. McCormick, vice-president advertising and marketing for Cleveland operation, and Cleveland attorney E. G. Halter, to be directors.

Sandra Instant Coffee Co. (Toronto)—Paul Higgins, president and general manager Mother Parker's Tea and Coffee Ltd., to hold same positions with new company, Roy Bain and Gordon F. Meades to be treasurer and director of sales respectively; all three to be directors.

Saskatchewan Cement Co. (Regina)—George R. Whitmore, Regina, chairman; William S. Ziegler, Edmonton, executive vice-president Inland Cement Co., president; George Ross, Regina, registered professional engineer and formerly sales manager Inland Cement Co. vice-president, operations; Edward Judd, Winnipeg, financial officer for both Saskatchewan Cement Co. and Inland Cement Co. to be secretary-treasurer; Messrs. Whitmore, Ziegler and Ross, with Andre Jadoul, F. Campbell Cope, Q.C.; D. M. Tyerman, Q.C., Harold F. Benson and A. E. Blakeney, directors.

Slingsby Manufacturing Co. (Brantford)—A. F. Klinkhammer, treasurer to be general manager, succeeding G. B. Kimpton, resigned to become president La France Textiles in Woodstock, Ont., continues as treasurer.

Sparling Tank & Mfg. Co. (Toronto)—A. V. Phillips, vice-president; F. E. Hindson, district sales manager.

Spartan Air Services Ltd. (Ottawa)—Professor H. L. Cameron, recently of Acadia University now associated with photo interpretation department as geologist and photogeologist.

John Struthers and Co. (Montreal)—John P. Meehan, to be manager newly-formed industrial equipment division.

Sun Life Assurance Co. of Canada (Montreal)—G. A. Golden, superintendent of mortgages; C. R. Cummins and W. D. Thomas, assistant superintendents of residential and commercial and industrial mortgages, respectively, both Canadian and United States.

Travelers Insurance Companies (Hartford, Conn.)—Joseph Thompson, resident agency vice-president for Canada.

Willis Advertising Ltd. (Toronto)—Philip H. Tedman, formerly a vice-president and account supervisor, with McKim Advertising Ltd., to be vice-president and account supervisor; C. M. Welsh formerly director and account executive with William R. Orr Ltd., to be vice-president and account executive; R. A. Fairhead, recently head creative and production departments Consolidated Press Ltd., creative director; John Head, formerly art director Maclean-Hunter Publishing Co., and more recently advertising counsellor, an account executive; John N. Campbell, formerly with Lakeside Milling Co. etc., account executive.

Young and Rubicam Ltd. (Montreal)—John S. Straiton, a shareholder and director, and creative co-ordinator of Toronto office with over-all responsibility for traffic, production, copy, art and radio/TV commercial production departments continues in this capacity as well as being a member of agency's plans board and to be a vice-president.

York Trading Ltd. (Toronto)—H. R. Berg to be general manager; was recently director of development.

U. S. Bourbon on Rocks As 'Canadian' Hits Top

Special Correspondence

WASHINGTON, D.C. — Americans are drinking more Canadian whisky these days than ever before.

Everybody is happy, except the bourbon-makers. Pressure from them and other U. S. domestic whisky companies has brought the U. S. Tariff Commission into the picture.

The commission has launched an investigation of whisky imports. A public hearing will be held next January to complete the investigation.

Importers of Canadian whisky are expected to be on hand to plead for no further trade restrictions, while the domestic industry will demand more protection.

More Canadian whisky is flowing across the border than ever before because of an intensified advertising campaign in the U. S. and because of a shift in the drinking habits of Americans.

"The steady increase in demand for Canadian whisky, which began in 1950," says the National Association of Alcoholic Beverage Importers Inc., "is partly the result of intensive merchandising, but primarily the result of the definite change in the drinking habits of U. S. consumers, as well as the increase in the purchasing power of the average U. S. citizen."

Canada now supplies about 40% of all imported whisky in the U. S. The rest comes from Britain.

In most of the bars in the larger U. S. cities it nowadays is as common to hear a customer ask for "a Canadian and soda," as it is to hear him ask for a "Scotch and soda."

Bourbon-makers have splashed advertising on billboards, in magazines and newspapers promoting bourbon and saying every well-stocked bar has bourbon, as well as Scotch and Canadian.

In a report on alcoholic imports, the association notes that Canada is also the number one beer supplier for the U. S. with Americans downing about 2,825,000 gallons of Canadian beer last year.

Canadian gin has slipped in popularity south of the border, however, with last year's imports amounting only to 3,575 gal. compared with the high point in 1946 of 74,750 gal.

Retirement savings and your tax position

MONTREAL TRUST Company

UNDER the terms of the revised Income Tax Act, a self-employed person may deduct from his taxable income certain funds set aside for a retirement savings programme.

Montreal Trust Company offers you a Government-registered Plan that provides unusually wide scope in taking full advantage of this new provision. It is a particularly flexible plan designed to provide retirement income for professional men and self-employed businessmen under advantageous terms.

Options under the Plan are available to offset effects of possible inflation.

MONTREAL TRUST COMPANY RETIREMENT SAVINGS PLAN

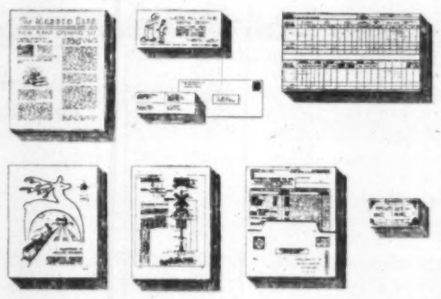
You may participate in the Retirement Savings Plan by arrangement with any branch of The Royal Bank of Canada. Funds can be accumulated at your own discretion during the course of the year but remain under your control until transferred into the Retirement Plan. This enables you to establish the amount you wish to contribute (within the limits specified by the Act) before preparing your income tax returns for the year. You are not committed to fixed contributions.

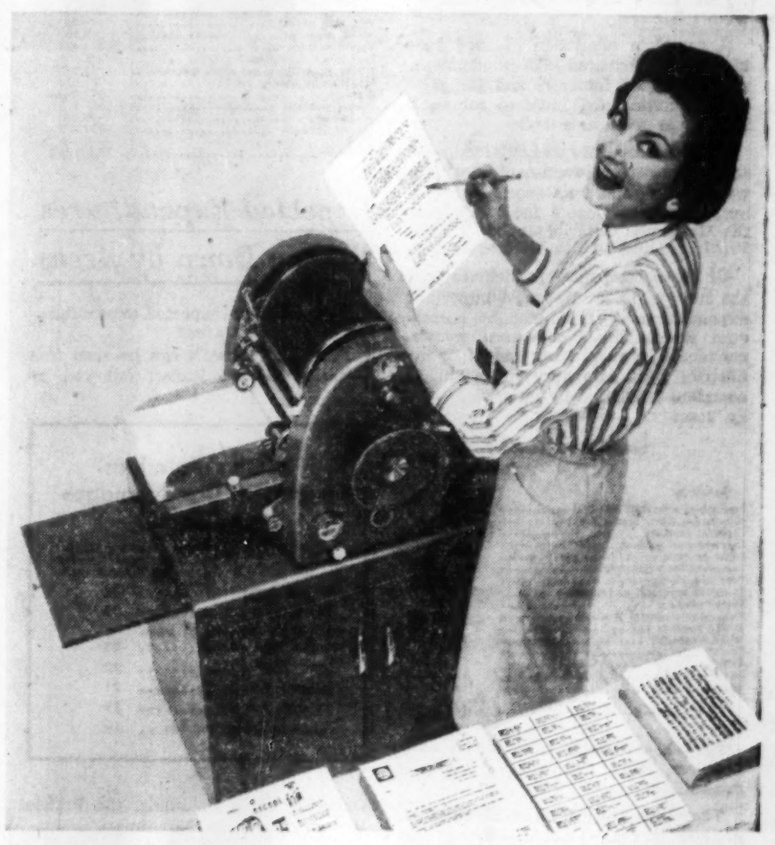
You may obtain a booklet giving full information about our new Retirement Savings Plan at any branch of The Royal Bank of Canada.

New

A·B·DICK Mimeographs

...for the easiest, fastest way you ever saw to get all kinds of beautiful copies





MODEL 438—Heavy-duty power-driven model. Full ream feed (500 sheets). Choice of paste or fluid ink cylinder. Hand-operated Model 433 also available.

MODEL 418—Fully electric operation at a price you'd expect to pay for hand-operated equipment. Choice of paste or fluid ink. Hand-operated Model 416 also available.

WITH NEW CLEANLINESS—All cylinders completely enclosed. Automatic ink distribution system does away with hand brushing on even the lowest priced models.

Quick, clean color change. Inexpensive, easy-out, easy-in cylinders.

NEW EASE OF OPERATION—Completely new feeding system virtually guarantees 100% perfect feeding including unevenly cut paper, ream ends, post cards or lightweight paper.

Completely automatic inking with either paste or fluid ink. One inking can produce up to 20,000 perfect copies without manipulation of dials or levers.

All operating instructions, on decals, are permanently mounted on the machines with all controls clearly identified.

NEW COPY QUALITY—With fluid ink cylinder you can use the new fast drying inks that eliminate show-through and set-off—give you smudge-free copies on top-quality hard surface papers.

New electronic stencils let you mimeograph complex illustrations and ruled forms—even remarkable facsimiles of halftones.

... A. B. Dick mimeograph products are for use with all makes of suitable stencil duplicating equipment.

DISTRIBUTORS OF A. B. DICK DUPLICATING PRODUCTS

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A. B. Dick Company of Canada, Ltd.
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J. D. Duguay Inc.
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Timmins, Ont.
Eddy Office Supply Co. Ltd.
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Peterborough Office Supply Co.
397 George Street North
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D. W. Jolly Company
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Algoma Equipment & Supply Company
129 Bruce Street
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93 South Algoma Street
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Dominion Carbon & Stencil Supply
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Hazen Stationery and Office Equipment
Regina, Sask.
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Edmonton, Alberta
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FOR MORE INFORMATION – Call your A. B. Dick Company Distributor listed above.

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Please send me more information about your new models of mimeograph machines with the new feed that guards against waste.

A. B. Dick Company of Canada, Ltd.
29 Gurney Crescent, Toronto 10, Ontario

Name_____
Position_____
Organization_____
Address_____
City_____ Prov._____

Will Your City Share In This Boom Ahead?

(CONTINUED FROM P. 7)

industries included textiles, paper, iron and steel, and electrical apparatus.

The results of this section of the survey indicate that the services of provincial industrial development departments have been found useful by many industrialists — but that a great deal of work remains to be done if these agencies are to fulfill their potential.

In making a more detailed study of provincial departments of industry and commerce, the survey first sought data on how well the departments had made themselves and their activities known to the business community.

Some 75% of the responding executives said that they were personally familiar with at least one of the departments.

This familiarity was generally high; it varied only from a high of 77% in petroleum and coal to a low of 44% in transportation equipment.

Except for the fact that the petroleum industry also led in projected new investment, there was no correlation between expected expansion and degree of familiarity.

Aside from the quantitative impact, the survey looked into the qualitative impression the departments were making; how good a job these key executives believed the departments were doing.

Some 58%—more than even claimed to know the departments well—believed that they were doing valuable work.

Only 13% thought that they were not. Generally, executives that knew the work of the departments best liked them best.

Thus, 85% of the petroleum and coal executives responding thought the departments were performing well.

There were, however, exceptions to this.

The highest degree of dissatisfaction was registered by textiles (26%), leather (25%), paper (24%) — industries that fell in the middle range on familiarity with the work of the departments.

Responding executives were asked to rank in order of importance seven of the typical activities and programs of provincial departments of industry and commerce designed to assist industrial development.

The activities which were ranked are listed below:

1. Provision of accurate and unbiased economic and engineering studies and reports showing specific opportunities for development.

2. Provision of accurate statistical data and marketing information.

3. Advertising.

4. Brochures on communities and areas.

5. Personal calls by representatives of the Department on Canadian firms considering expansion.

6. Tax concessions.

7. Assistance in financing.

The over-all total indicated that 31% gave provision of economic and engineering studies and reports a "first" followed closely by 30% for provision of accurate statistical data and market information, and 17% for tax concessions.

Engineering and economic studies were most interesting to food and beverages, printing and wood products.

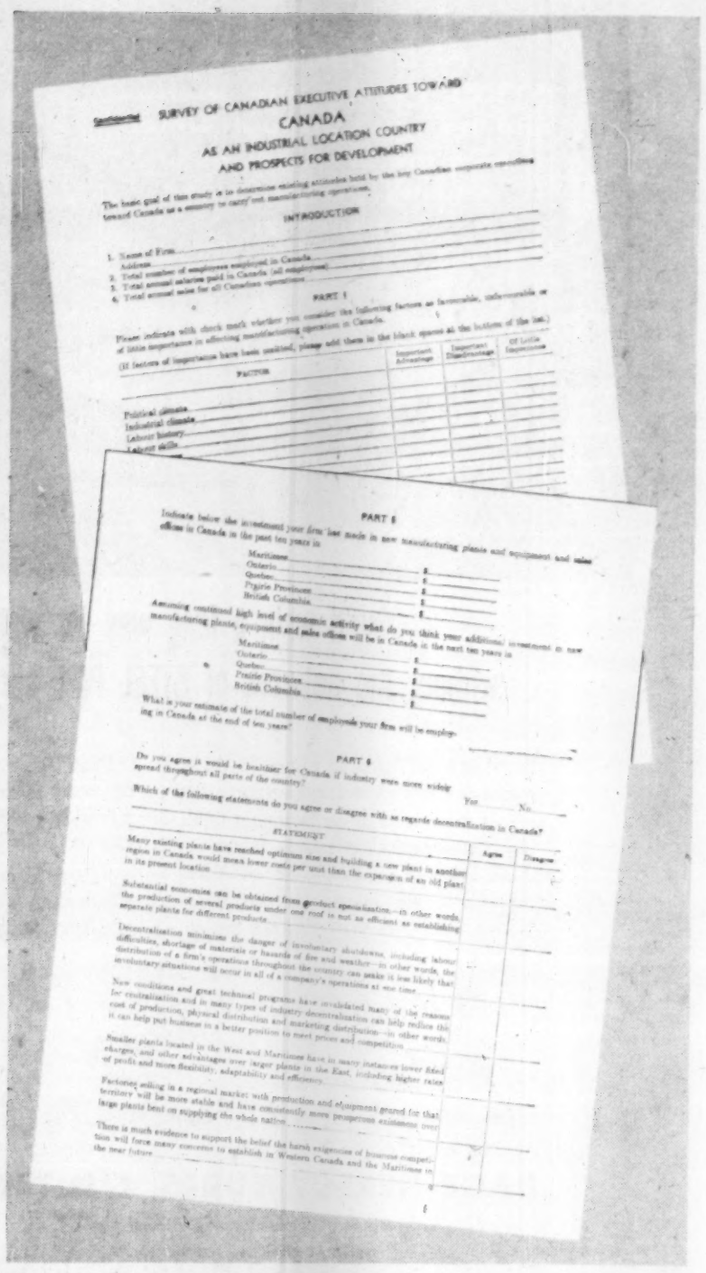
Accurate statistics were wanted most by the rubber, printing, nonmetallic minerals, and chemical industries.

Tax concessions were of most importance to the textile, petroleum, and nonferrous metal industries.

Among the less popular programs, above average interest in personal calls was evidenced by leather products, clothing, iron and steel, and non-ferrous metal executives.

Likewise, there was above average interest in financing on the part of textiles, clothing, wood and petroleum respondents.

There was little interest in advertising or in brochures on communities and areas.



SURVEY OF CANADIAN EXECUTIVE ATTITUDES TOWARD CANADA AS AN INDUSTRIAL LOCATION COUNTRY AND PROSPECTS FOR DEVELOPMENT

The basic goal of this study is to determine existing attitudes held by the key Canadian corporate executives toward Canada as a country for carrying out manufacturing operations.

INTRODUCTION

1. Name of Firm
Address
2. Total number of employees employed in Canada
3. Total annual salaries paid in Canada (all employees)
4. Total annual sales for all Canadian operations

PART I

Please indicate with check mark whether you consider the following factors as favourable, unfavourable or of little importance in affecting manufacturing operation in Canada.

(If factors of importance have been omitted, please add them in the blank spaces at the bottom of the list.)

FACTOR	Important Advantage	Important Disadvantage	Of Little Importance
Political climate			
Industrial climate			
Labour history			
Labour skills			

PART II

Indicate below the investment your firm has made in new manufacturing plants and equipment and sales offices in Canada in the past ten years in

Maritimes $
Ontario $
Quebec $
Prairie Provinces $
British Columbia $

Assuming continued high level of economic activity what do you think your additional investment in new manufacturing plants, equipment and sales offices will be in Canada in the next ten years in

Maritimes $
Ontario $
Quebec $
Prairie Provinces $
British Columbia $

What is your estimate of the total number of employees your firm will be employing in Canada at the end of ten years?

PART III

Do you agree it would be healthier for Canada if industry were more widely spread throughout all parts of the country? Yes No

Which of the following statements do you agree or disagree with as regards decentralization in Canada?

STATEMENT	Agree	Disagree
Many existing plants have reached optimum size and building a new plant in another region in Canada would mean lower costs per unit than the expansion of an old plant in its present location		
Substantial economies can be obtained from product specialization—in other words, the production of several products under one roof is not as efficient as establishing separate plants for different products		
Decentralization minimizes the danger of involuntary shutdowns, including labour difficulties, shortage of materials or hazards of fire and weather—in other words, the distribution of a firm's operations throughout the country can make it less likely that involuntary situations will occur in all of a company's operations at one time		
New conditions and great technical progress have invalidated many of the reasons for centralization and in many types of industry decentralization can help reduce the cost of production, physical distribution and marketing distribution—in other words, it can help put business in a better position to meet prices and competition		
Smaller plants located in the West and Maritimes have in many instances lower fixed charges, and other advantages over larger plants in the East, including higher rates of profit and more flexibility, adaptability and efficiency		
Factories selling in a regional market with production and equipment geared for that territory will be more stable and have consistently more prosperous existences over large plants bent on supplying the whole nation		
There is much evidence to support the belief the harsh exigencies of business competition will force many concerns to establish in Western Canada and the Maritimes in the near future		

PAGES ONE AND FIVE of the detailed questionnaire on which the Grose study is based.

The Appeal of Arguments in Favor of Decentralization of Industry

In an effort to gain some insight into executives' preconceptions of the strong points of decentralization, respondents were asked whether they agreed or disagreed with the following eight statements:

* * *

1. It would be healthier for Canada if industry were more widely spread throughout all parts of the country.

* * *

2. Many existing plants have reached optimum size and building a new plant in another region in Canada would mean lower cost per unit than the expansion of an old plant in its present location.

* * *

3. Substantial economies can be obtained from product specialization — in other words, the production of several products under one roof is not as efficient as establishing separate plants for different products.

* * *

4. Decentralization minimizes the danger of involuntary shutdowns, including labor difficulty, shortage of materials, or hazards of fire and weather—in other words, the distribution of a firm's operation throughout the country can make it less likely that involuntary situations will occur in all of a company's operation at one time.

* * *

5. New conditions and great technical progress have invalidated many of the reasons for centralization, and in many types of industry decentralization can help reduce the cost of production, physical distribution, and marketing distribution — in other words, it can help put business in a better position to meet prices and competition.

* * *

6. Smaller plants located in the West and Maritimes have in many instances lower fixed charges, and other advantages over larger plants in the East, including higher rates of profit and more flexibility, adaptability and efficiency.

* * *

7. Factories selling in a regional market with production and equipment geared for that territory will be more stable and have consistently more prosperous existences over large plants bent on supplying the whole nation.

* * *

8. There is much evidence to support the belief the harsh exigencies of business competition will force many concerns to establish in Western Canada and the Maritimes in the near future.

* * *

A total of 81% agreed that it would be healthier if Canadian industry were more widely spread.

The responding companies in the rubber and printing industries were unanimous in this belief.

There was also a relatively high degree of agreement in the wood product, food and beverages, transportation equipment, non-ferrous metal, textile, and petroleum industries.

Now, as to what appeals seemed important in influencing this disposition towards diversification, the argument that "decentralization minimizes the **danger of involuntary shutdowns" led** with 85% agreeing. The complete listing of per cent agreeing is given here:

Statement	% Agreement
"Decentralization minimizes the danger of involuntary shutdowns"	85%
"New conditions . . . have invalidated the reasons for centralization"	66%
"Substantial economies can be obtained from product specialization"	50%
"Many existing plants have reached optimum size"	49%
"Competition will force concerns to establish in Western Canada and the Maritimes (soon)"	44%
"Factories selling in a regional market . . . will be more stable"	43%
"Smaller plants . . . have . . . lower fixed charges and other advantages"	42%

Unfortunately, these figures do not indicate any order of importance for the statements; they are merely the percentage of respondents agreeing with each statement as an individual proposition.

- **On "decentralization minimizes** the danger of involuntary shutdowns," those responding in textile and rubber industries were unanimous in their agreement. Non-ferrous metal respondents were also in over 90% agreement.
- **On "new conditions** . . . have invalidated the reasons for centralization," petroleum and coal, followed by food and beverages, had a leading degree of agreement.
- **On "substantial economies** can be obtained from product specialization," the rubber, leather and textile industries strongly agreed. On the other hand, the food and beverages, paper, printing, petroleum and chemical industries strongly disagreed.
- **On "many existing** plants have reached optimum size," many industries were fairly evenly split. Disagreement came principally from the leather, electrical apparatus, and petroleum respondents.
- **On "competition will force** concerns to establish in Western Canada and the Maritimes soon," many industries disagreed within themselves but the leather, nonmetallic mineral, petroleum and chemical industries were in general agreement with the proposition. The rubber and clothing industries were not.
- **On "factories selling** in a regional market . . . will be more stable," printing, non-ferrous metal products, petroleum and chemical executives agreed to a significant extent — but rubber products and electrical apparatus respondents did not.
- **On "smaller plants have** lower fixed charges and other advantages," the food and beverages, textiles and petroleum companies agreed; those in the electrical apparatus field did not.

The pattern of the relative degree of acceptability is clear — but the relative importance of various arguments in favor of decentralization cannot be evaluated.

Provinces in under-industrialized areas which would benefit from increased decentralization can take their cues from this material.

These Industries Were Surveyed

DBS Standard Classification

GROUP AND INDUSTRY

Food and Beverages
- Bakery Products
  - Biscuits
  - Bread and other bakery products
- Beverages
  - Breweries
  - Carbonated beverages
  - Distilled liquors
  - Wines
- Canning and Processing
  - Fish processing
  - Fruit and vegetable preparations
- Dairy Products
  - Butter and cheese
  - Cheese, process
  - Concentrated milk products
  - Dairy products, other
- Grain Mill Products
  - Feeds, stock and poultry, prepared
  - Feed Mills
  - Flour mills
  - Foods, breakfast
- Meat Products
  - Animal oils and fats
  - Sausage and sausage casing
- Other Food Industries
  - Confectionery
  - Macaroni and kindred products
  - Sugar refining
  - Food preparations, n.e.s.

Rubber Products
- Rubber goods (including footwear)

Leather Products
- Footwear, leather
- Gloves and mittens, leather
- Leather tanning
- Belting, leather
- Boot and shoe findings, leather
- Miscellaneous, n.e.s.

Textiles
- Cotton Goods
  - Cotton thread
  - Cotton yarn and cloth
  - Miscellaneous cotton goods
- Woollen Goods
  - Carpets, mats and rugs
  - Woollen cloth
  - Woollen yarn
  - Miscellaneous woollen goods
- Synthetic textiles and silk
- Other Primary Textiles
  - Dyeing and finishing of textiles
  - Narrow fabrics
- Other Textile Industries
  - Automobile accessories, fabric
  - Awnings, tents and sails
  - Bags, cotton and jute
  - Cordage, rope and twine
  - Embroideries, pleating, hemstitching, etc.
  - Oilcloth, linoleum and other coated fabric
  - Textiles, n.e.s.

Knitting Mills
- Hosiery
- Knitted goods

Clothing
- Men's, Women's and Children's Clothing
  - Clothing, children's factory
  - Clothing, men's factory
  - Clothing, women's factory
  - Clothing contractors, men's
  - Clothing contractors, women's
- Miscellaneous Clothing
  - Corsets
  - Fur dressing and dyeing
  - Fur goods
  - Gloves, mittens, fabric
  - Hats and caps
  - Oiled and waterproofed clothing
  - Clothing, n.e.s.

Wood Products
- Furniture
- Saw and Planing Mills
  - Flooring, hardwood
  - Sash, door and planing mills
  - Sawmills
  - Veneers and plywoods
- Other Wood Industries
  - Beekeepers' and poultrymen's supplies
  - Boxes and baskets, wood
  - Cooperage
  - Excelsior
  - Lasts, trees and shoe findings
  - Morticians' goods
  - Woodenware
  - Wood turning
  - Wood products, n.e.s.

Paper Products
- Boxes and bags, paper
- Pulp and paper
- Roofing paper
- Miscellaneous paper goods

Printing, Publishing and Allied Industries
- Commercial Printing
  - Printing and bookbinding
  - Trade Composition
- Engraving, Stereotyping and Allied Industries
  - Engraving, stereotyping and electrotyping
  - Lithographing
- Printing and Publishing
  - Printing and publishing
  - Publishing (only of periodicals)

Iron and Steel Products
- Agricultural implements
- Boilers, tanks and platework
- Bridge building and structural steel
- Castings, iron
- Hardware, tools and cutlery
- Heating and cooking apparatus
- Machinery, household, office and store
- Machinery, industrial
- Machine shops
- Machine tools
- Primary iron and steel
- Sheet metal products
- Wire and wire goods
- Miscellaneous iron and steel products

Transportation Equipment
- Aircraft and parts
- Bicycles and parts
- Boat building
- Carriages, wagons and sleighs
- Motor vehicles
- Motor vehicle parts
- Railway rolling stock
- Shipbuilding

Non-Ferrous Metal Products
- Aluminum products
- Brass and copper products
- Jewellery and silver
- Non-ferrous metal smelting and refining
- White metal alloys
- Miscellaneous non-ferrous metal products

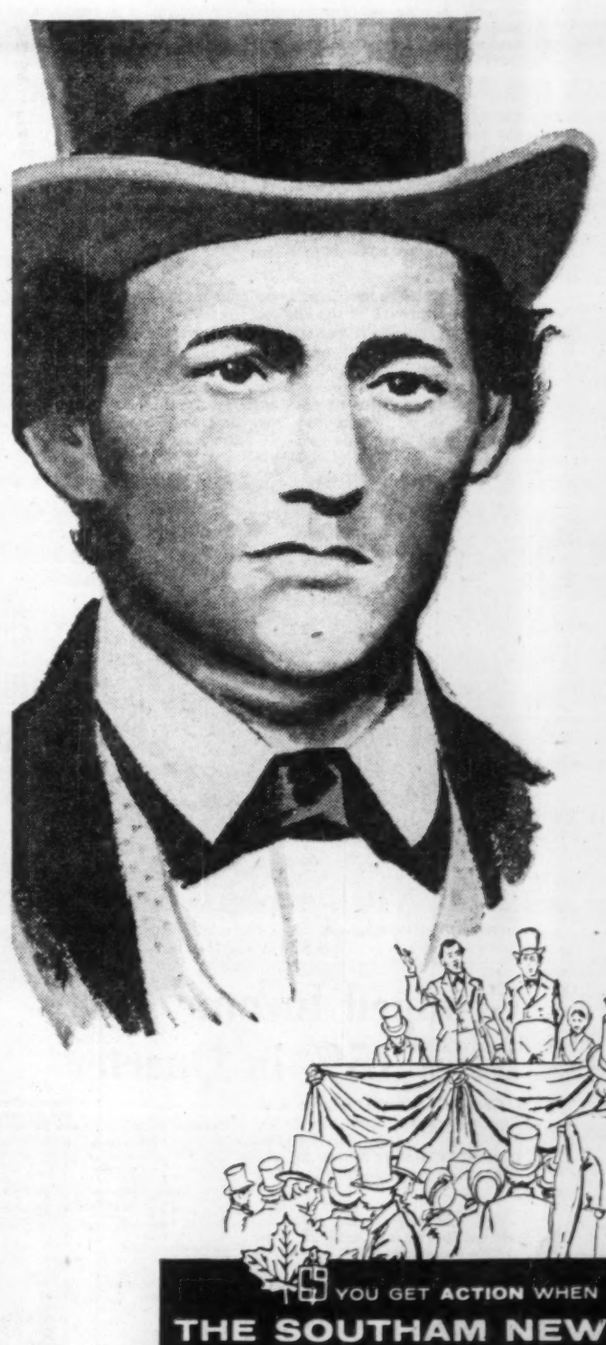
Electrical Apparatus and Supplies
- Batteries
- Radio and television sets and parts
- Refrigerators, vacuum cleaners and appliances
- Machinery, heavy electrical
- Miscellaneous electrical apparatus and supplies

Non-Metallic Mineral Products
- Abrasives, artificial
- Asbestos products
- Cement, hydraulic
- Clay products from domestic clay
- Clay products from imported clay
- Concrete products
- Glass and glass products
- Gypsum products
- Lime
- Salt
- Sand-lime brick
- Stone products
- Miscellaneous non-metallic mineral products

Products of Petroleum and Coal
- Coke and gas products
- Petroleum products
- Miscellaneous products of petroleum and coal

Chemicals and Allied Products
- Acids, alkalies and salts
- Fertilizers
- Medicinal and pharmaceutical preparations
- Paints, varnishes and lacquers
- Primary plastics
- Soaps, washing compounds and cleaning preparations
- Toilet preparations
- Vegetable oils
- Other Chemical Industries
  - Adhesives
  - Coal tar distillation
  - Gases, compressed
  - Inks
  - Polishes and dressings
- Chemical products, n.e.s.

Miscellaneous Industries
- Brooms, brushes and mops
- Clocks, watches and watch cases
- Fountain pens and pencils
- Musical instruments
- Plastics products
- Scientific and professional equipment
- Sporting goods
- Toys and games
- Typewriter supplies
- Other Miscellaneous Industries
  - Artificial flowers and feathers
  - Buttons, buckles and fasteners
  - Candles
  - Hair goods
  - Ice, artificial
  - Lamps, electric and lamp shades
  - Models and patterns, excluding paper
  - Pipes, lighters and smoking supplies
  - Signs, electric neon and other
  - Stamps and stencils, rubber and metal
  - Statuary art goods, regalia and novelties
  - Umbrellas
  - Other miscellaneous industries



Self-government comes to Hamilton

The Hamilton of 1846 was a bustling, industrious town nestled below the Mountain at the west end of Lake Ontario. Since the black year of 1812, hardy Scottish and Loyalist settlers had survived war, plague, fire and political strife.

By 1846 the political strife had resolved itself in the Province of Upper Canada and the people of Hamilton saw their dreams come true. Their city was granted self-government. After boisterous election campaigns, two representatives from each of the city's five wards were elected. From their number Colin C. Ferrie became Hamilton's first mayor.

1846 was a big year for the "Ambitious City" . . . the birth of self-government, cityhood and the founding of its own local newspaper, the Hamilton Spectator. Serving this great industrial community for over 111 years the Spectator has become a family tradition . . . read and trusted by over 94,000 families every day.

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Trade With Malaya

Watch for Increased Exports

What's ahead for Canadian trade with the Federation of Malaya which recently emerged as an independent nation within the British Commonwealth?

The likely prospect: Continued increase in exports because thriving, resources-rich Malaya needs our motor vehicles, machinery, gas engines and farm products, and because Canada needs Malaya's rubber and tin.

Malaya-Singapore imports from Canada last year totaled nearly $4 million, up about $500,000 from the previous year.

Canada's imports totaled $28.5 million, a shade below the previous year. Chief items: Crude rubber valued at $22 million and tin worth $3 million.

Malaya also produces several other crops chiefly for export, principally oil palms, coconuts and pineapples.

Extension of these crops is being encouraged to help diversify the country's economy but the income is small compared with that of rubber.

The production of tin in relation to all other mining activities in Malaya occupies a position similar to that of rubber in agriculture.

Other minerals such as coal, iron ore, aluminum, gold, tungsten, titanium and china clay are produced on a relatively small scale.

Highest Income

Malaya claims the highest per capita income in the Far East, a far cry from her pre-British days at the end of the last century.

When the British arrived not more than one tenth of Malaya's present six-million population was cultivating about one fifth of her present 20,000 sq. miles of cultivable land.

Malaya today:

- Her two primary industries produce more than 25% of the world's natural rubber and one third of the world's tin.
- As much western capital is invested there as in the whole of North Africa outside of Egypt.
- She has a network of communications and power supplies well above most Asian standards.
- She has the most youthful population in the world — more than half under 21 yr.

Although rubber and tin are the mainstay of her economy, the last decade has seen the development of a very useful range of secondary industries.

Three out of 10 people in the federation (of whom 48% are Malay, 39% Chinese and 11% Indians, Pakistanis and Ceylonese) are supported by the rubber industry and one of them by tin. At least one of the remaining six (three of whom are still at school) subsists on secondary industry, usually a small-scale family concern.

Family Firms

Apart from agricultural products there are thousands of family or co-operative businesses in light engineering, building, printing, furniture-making and so on.

These meet the greater part of the country's needs and are limited in their expansion only by a lack of more advanced research and training facilities.

Completing the second year of her current development program, Malaya envisages capital investment of $345 million of which 60% is for economic prospects and 30% for social services. Already in hand are works totaling more than $130 million.

(Some $220 million was spent on a six-year plan completed in 1955.)

The economic sector provides roughly $21 million for agricultural development (mainly land drainage and irrigation), $80 million for transport and communications, and $53 million for industrial development, principally grants for rubber replanting and the promotion of rural industries. A $25-million expansion of hydro-electric power is planned.

In addition to this development the federation intends to expand its armed forces, with the U. K. undertaking to contribute about $37 million.

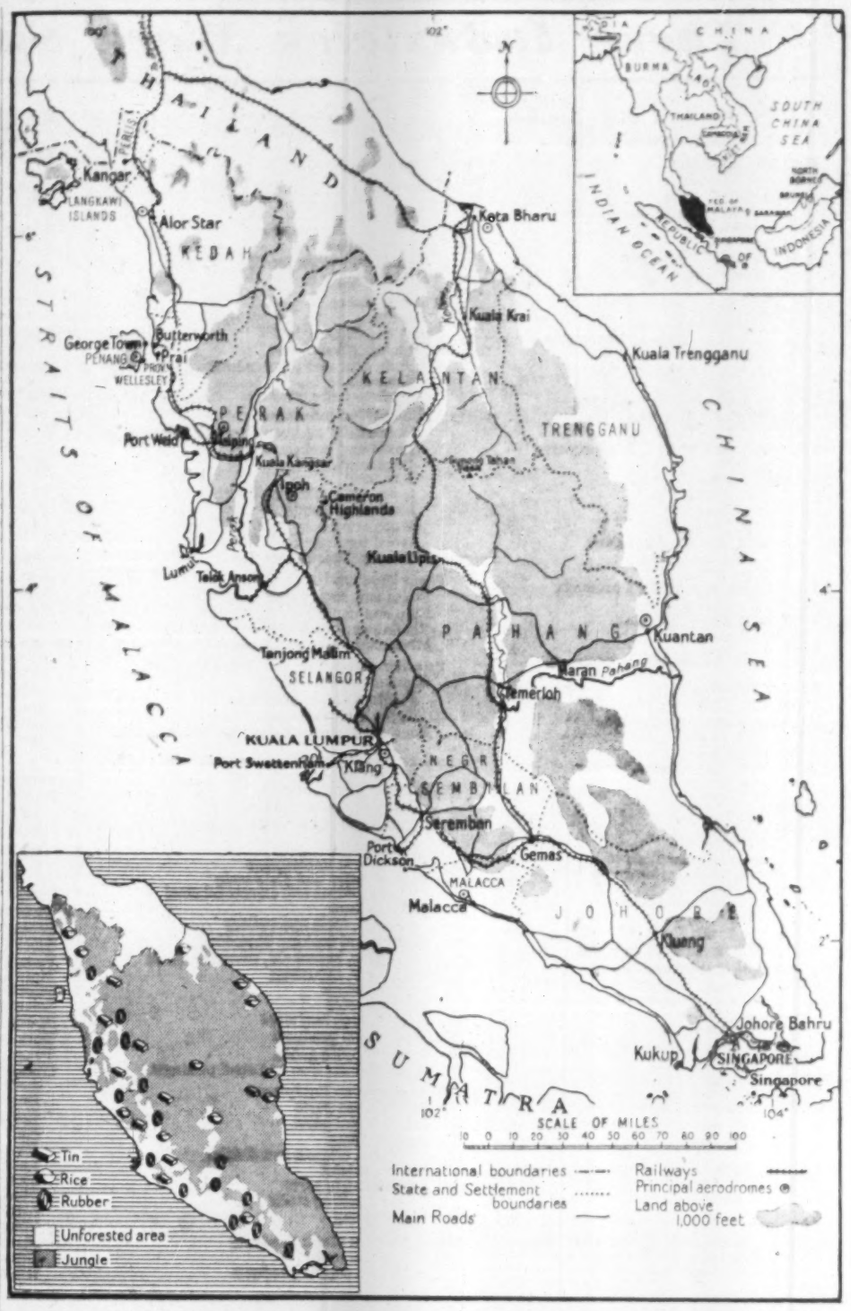
The federation's problems would be infinitely eased if she did not have to spend about one sixth of her revenue on her unfinished war against the communists in the jungle. The terrorists, however, no longer present anything like the threat to ordered government that they once did.

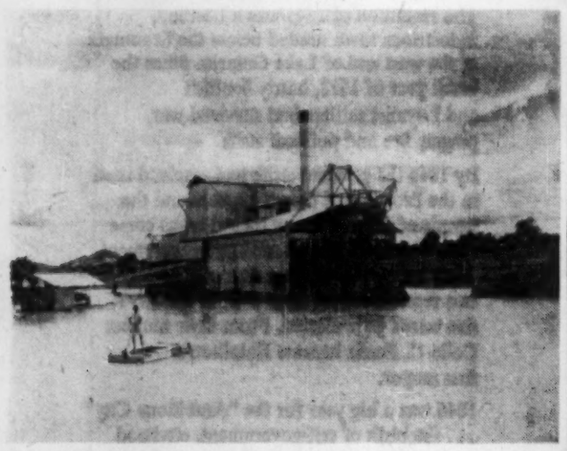
The U. K. will continue to bear by far the greater part of the military burden by providing up to $53 million over the next five years toward the federation's share.

The modern economy of Malaya has been built up by the co-operation of administrations and private enterprise.

The construction of a network of communications, the development of rural areas, irrigation and drainage schemes and the provision of extensive public utilities and basic services have been, in the main, the work of government agencies.

Private enterprise — mostly U. K.— has provided a wide range of commercial services and has brought to the mines, the plantations and the factories, the capital and knowledge for their establishment and development.





TIN DREDGE separates tin from rock and earth. Malaya produced 73,000 tons last year, more than any other nation.

MODERN SHOPS, arcades line the market square of Kuala Lumpur, capital city of Malaya.

Capital Procurement

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STOCK ISSUES ARRANGED

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Bank Staff Changes

Royal:

R. F. TAYLOR, Toronto, to be manager, Jones & Gerrard, Toronto.

R. E. BAILEY, Edmonton South, to be acting manager, Port Radium, N.W.T.

K. A. CAMPBELL, Supervisors' Dept., Regina, to be assistant manager, Regina.

R. W. DOUPE, Assistant General Manager's Dept., Toronto, to be assistant manager, Vancouver.

W. C. WATT, assistant manager, Regina, to be assistant manager, New Westminster, B.C.

G. C. NELSON, Assistant General Manager's Dept., Toronto, to be assistant manager, Spadina & College, Toronto.

G. E. HOLMES, Pembina & Oakenwald, Fort Garry, Man., to be accountant, Transcona, Man.

P. J. HAND, acting manager, Edson, Alta., to be accountant, 102nd St. & 102nd Ave., Edmonton.

D. W. HOLMES, assistant accountant, Yonge & Bloor, Toronto, promoted to accountant.

R. S. BROWN, Bay & Temperance, Toronto, to be accountant, Regent & Hazel, Sudbury, Ont.

J. F. H. OSBORNE, Wallaceburg, Ont., to be accountant, Quirke Lake, Ont.

J. H. C. BIRD, accountant, Indian Head, Sask., to be accountant, Rosetown, Sask.

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Grouped Income Value Rises 15% in Quarter

Grouped Income Shares Ltd., Vancouver, net assets rose to $5,256,984 at June 30, 15.4% higher than $4,557,140 at March 31, and 69.6% higher than $3,100,136 at June 30, 1956.

Net asset value per share increased to $4 at June 30 from $3.87 a year earlier.

Portfolio at end of quarter included common stocks in 49 companies, of which 36 were Canadian.

During the quarter, the fund made the following changes in stock holdings:

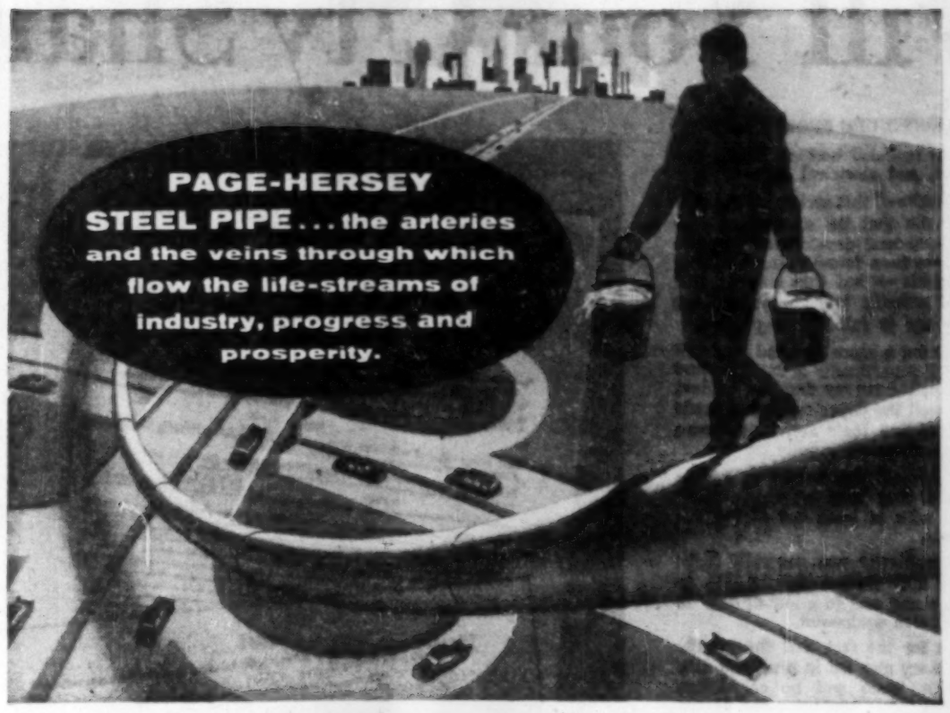
—Added one common stock.

—Eliminated one common stock.

Here are the quarter's portfolio changes in detail:

Canadian Stocks	Shares Held at June 30	Change Since Mar. 31
Aluminium Ltd.	3,800	*+2,700
B.A. Oil	4,000	—100
CPR	3,900	—200
Cons. Paper	1,100	—300
Dom. Tar & Chem.	6,300	—700
Fraser Cos.	1,400	—100
Gunnar Mines	4,200	—200
Gypsum Lime	2,900	—100
H. Smith Paper	1,300	—100
Kerr Addison Gold	2,800	—100
Loblaw Cos.	8,500	—300
Massey-Harris-Ferg.	7,600	—600
MacMillan & Bloedel	1,700	—200
Noranda Mines	1,600	—100
Page-Hersey	1,750	—250
Sheep Rock	4,100	—400
Traders Finance, A	1,000	—200
Western Plywood	3,500	—900
U. S. Stocks		
Am. Airlines		—2,500
Babcock & Wilcox	2,168	—368
Boeing Aircraft	1,832	—200
Douglas Aircraft	1,200	—200
Gen. Dynamics	2,000	—200
Radio Corp.	3,700	—300
Skelly Oil	2,800	—200
Standard Oil, N.J.	2,800	—200
Sylvania Electric	3,000	—200

*Reflects three-for-one stock split and purchase of additional shares.



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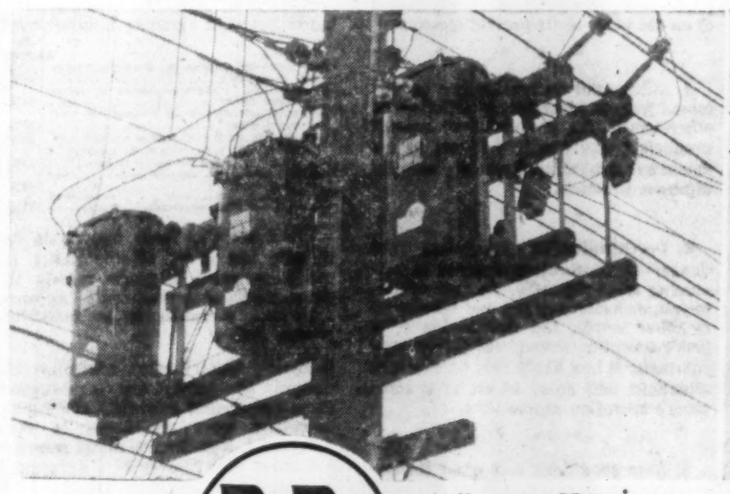
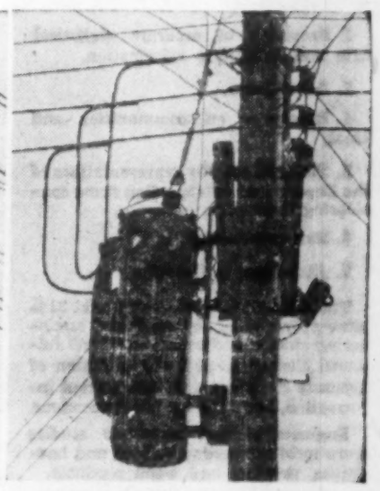


(a) You get more BB 99 capacity on each pole.



(b) Closer mounting of BB 99 Transformers greatly lessens bending moment.

BB 99

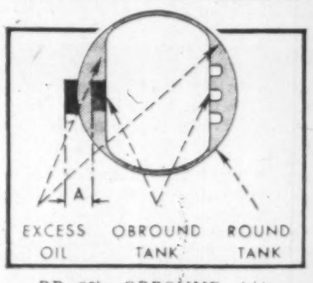
gives MORE CAPACITY with LESS WEIGHT

BB 99 DISTRIBUTION TRANSFORMERS permit greater output from existing pole structures.

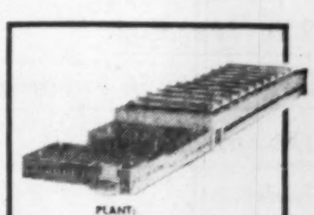
You can increase the potential capacity of your existing transformer structures by installing Brown Boveri BB 99 Distribution Transformers.

Because of its OBROUND tank design the BB 99 Distribution Transformer gives these important advantages:

- Transformer mounts closer to the pole (see A on diagram) and reduces bending moment by 15%.
- Improved bushing placement allows units to be mounted closer together and maintain clearances.
- Lower weight due to reduced oil capacity.
- Efficient heat transfer by adequate cooling tube arrangement gives greater overload capacity.
- Light overall weights make easier handling in field, reduces installation and haulage costs.



BB 99's OBROUND design requires less transformer oil. Additional cooling tubes provide adequate cooling. Transfer of heat from the copper to the outside air is faster and more efficient.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NOTICE

PLEASE TAKE NOTICE that THE MANHATTAN LIFE INSURANCE COMPANY of NEW YORK will apply to the Minister of Finance of Canada for the release of all the assets of EXPRESSMEN'S MUTUAL LIFE INSURANCE COMPANY of NEW YORK, whose assets are absorbed and whose liability is assumed by THE MANHATTAN LIFE INSURANCE COMPANY of NEW YORK pursuant to a reinsurance and assumption agreement dated December 31, 1956, which assets are now on deposit with the Minister of Finance of Canada on the 30th day of October, 1957. All policyholders and certificate holders of said EXPRESSMEN'S MUTUAL LIFE INSURANCE COMPANY of NEW YORK in Canada who are opposed to the aforementioned release of assets must file their opposition thereto with the Minister of Finance of Canada on or before said October 30, 1957.

THE MANHATTAN LIFE INSURANCE COMPANY of NEW YORK
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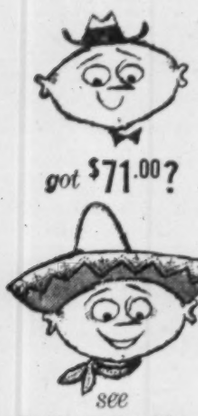

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B-V

Seaway Means Chemical Boost

The impact of the St. Lawrence Seaway upon the chemical industry has received a close study by some of the top authorities in both Canada and U. S.

The highlights of their findings were presented this week at the annual resort meeting of the Chemical Market Research Association at Lake Placid, N.Y.

Here are the major points.

D. WALKINGTON (Canadian Industries Ltd.)

As far as its effect on chemical imports is concerned, the Seaway will allow larger vessels to enter the Great Lakes from the ocean, and will probably give slightly lower delivered costs on bulk shipments.

The larger the tonnage involved and the lower the selling price, the greater the chance that foreign chemicals will better their position competitively.

The fact that the Seaway will be closed for some months each year will make winter storage necessary, and this cost will offset freight savings to some extent.

On higher priced chemicals the differential at Great Lakes' ports will be insignificant.

The expected growth of industry in the area will mean an enlarged over-all demand for chemicals, and presumably imports will take some of the increased business.

A future possibility may be the use of multi-unit tankers to carry a variety of liquid chemicals.

• • •

W. R. CALE (Electric Reduction Co. of Canada)

In future, various types of chemical plant may be expected to locate on the Seaway, says W. R. Cale of Electric Reduction Co. of Canada. These would likely include heavy chemical, fertilizer, petrochemical producers.

Three of the four plants of Electric Reduction are, or will be, located on deep water, two on the St. Lawrence Seaway route.

The plants on the Seaway require large quantities of phosphate rock in the production of phosphorus and phosphates, and the need of low-cost water shipping facilities to reduce transportation costs.

• • •

H. G. MILLER (Dow Chemical Co.)

The reduction in export costs, particularly to the European market, should make it possible for producers located on or near the St. Lawrence Seaway and the Great Lakes to compete more effectively with East Coast and Gulf producers, states H. G. Miller of Dow Chemical Co. This should result in a larger percentage of the U. S. exports coming from this area.

But Mr. Miller thinks the Seaway will have little effect on the total exports from the U. S. since there are so many other factors beyond transportation costs involved.

• • •

LEWIS G. CASTLE (Administrator, St. Lawrence Seaway Development Corp.)

Because of the Seaway project, great impetus has been given to port development on U. S. and Canadian shores within the Great Lakes Basin.

Transportation of cargo to and from lake ports will increase to the advantage of railroads and truck fleets.

Consequently, large sums are being spent by a number of local authorities for the purpose of providing port facilities in anticipation of the completion of the Seaway.

The bulk products to utilize the Seaway will be largely iron ore, grain, coal, petroleum and wood pulp, Mr. Castle states.

This will constitute about 80% of the potential volume of traffic. The balance will be in general cargo.

• • •

HARRY G. SLATER (Niagara-Mohawk Power Corp.)

All of the power output of the $335 million St. Lawrence project has been allocated under long-term contracts and will be absorbed in stride by the ever-increasing power requirements of the market area, states Harry G. Slater, Associate General Counsel, Niagara-Mohawk Power Corp.

• • •

J. D. BOYLAN (New York Central System)

The key to the competitive force of the Seaway against rail transportation lies in the amount of the tolls that will be charged, says J. D. Boylan of the New York Central System.

Any divergence from the full intent of Public Law 258 of May 13, 1954 will be a violation of public trust and while imposing a continuing and probably heavy debt burden on the taxpayers, will make it virtually impossible for railroads and other land transportation agencies to compete.

At the same time, no railway steamship line or other form of transportation can now basically object to the Seaway if it is a completely self-liquidating entity.

In planning to meet Seaway competition, aside from the necessary rate adjustments, the railways should not overlook such factors as the limited operating season of the Seaway, the slower transit time due to the physical nature of the waterway itself, and the inadequacy of the steamship service and schedules as compared to those in the East and Gulf Coast ports.

SEC Reports Stock Trading

Among changes in security holdings reported by the U. S. Securities & Exchange Commission, covering reports filed with the SEC in August by company officers and directors were the following:

Walter Maynard, director, sold 100 shares of **Campbell Chibougamau Mines,** reducing his holding to 600 shares at the end of July.

S. R. Smith, director, sold 1,000 shares of **Canadian Atlantic Oil,** reducing his holding to 3,000 shares at the end of July.

H. A. Cornwall, officer, bought 150 shares of **Canadian Breweries** through stock purchase plan, increasing his holding to 1,450 shares at the end of June.

Wilfred Gagnon, director, bought 300 shares of **Canadian Breweries** through stock purchase plan, increasing his holding to 3,300 shares at the end of June.

Mildred A. Griffith sold 50,000 shares of **Canadian Prospect,** reducing his holding to 270,890 shares at the end of July.

D. S. Beatty, director, bought 2,500 shares of **Devon-Palmer Oils,** increasing his holding to 9,501 shares at the end of July.

Continental Mining Exploration sold 200,000 shares of **Faraday Uranium Mines,** reducing its holding to 831,676 shares at the end of July.

P. W. Matthews, director, bought 10,000 shares of **Fargo Oils,** increasing his holding to 24,900 shares at the end of June.

A. H. Meadows, officer and director, bought 100 shares of **Fargo Oils,** increasing his holding to 4,200 shares at the end of July. **General American Oil Co. (Texas),** in which he holds an interest held 2,000,308 shares at the end of month.

Frederic de Hoffmann, officer, acquired 7,500 shares of **General Dynamics** through exercise of options, increasing his holding to 7,530 shares at the end of July.

E. D. Johnson, officer and director, sold 8,700 shares of **General Dynamics,** reducing his holding to 21,300 shares at the end of July.

A. D. Marshall, officer, sold 1,050 shares of **General Dynamics,** reducing his holding to 9,700 shares at the end of July.

R. B. Watts, officer and director, sold 3,500 shares of **General Dynamics,** reducing his holding to 3,640 shares at the end of July.

R. M. MacRae, officer and director, bought 1,300 shares of **Granby Consolidated Mining Smelting & Power,** increasing his holding to 4,000 shares at the end of July.

W. F. Knode, director, bought 500 shares of **Merrill Petroleums,** increasing his holding to 1,160 shares at the end of July.

O. W. Matheny, officer, sold 10,000 shares of **Merrill Petroleums,** reducing his holding to 75,000 shares at the end of July.

Loblaw Groceterias bought 8,000 shares of **National Tea,** increasing its holding to 730,857 shares at the end of June.

Wm. T. Morgan, Jr., officer, bought 400 shares of **National Tea,** increasing his holding to 500 shares at the end of July.

Charles Wooding, officer, bought 200 shares of **National Tea,** increasing his holding to 202 shares at the end of July.

H. E. Howard, director, bought $4,000 5% convertible debentures of **New Superior Oils of Canada** in December, 1956, and an additional $1,000 in January, 1957, increasing his holding to $32,000 at the end of January.

A. W. White, director, held 5,000 shares of **Nickel Rim Mines** at the end of June. **Brewis & White** in which he holds an interest, sold 10,000 shares, eliminating its holding by end of month.

W. H. Farrand, director, bought 1,000 shares of **Scurry-Rainbow Oil,** increasing his holding to 1,500 shares by the end of July.

Atlas Corp. bought 6,900 shares of **Stanrock Uranium Mines,** increasing its holding to 465,500 shares by the end of June.

D. S. Robertson, officer, bought 5,000 shares of **Stanrock Uranium Mines** which represented his entire holding at the end of July.

George Rowe, Jr., officer, bought 5,000 shares of **Stanrock Uranium Mines,** increasing his holding to 9,612 shares at the end of July.

William Zeckendorf, officer and director, bought 3,300 shares of **Webb & Knapp Inc.,** increasing his holding to 4,746,480 shares at the end of July.

B. C. Socreds Still Have Strong Hold

From Our Own Correspondent

VICTORIA—British Columbia's recent "little election" proved that this province is still predominantly Social Credit and CCF, at least as far as the legislature is concerned.

There were three by-elections—Social Credit held its two seats and the CCF held its one.

The Conservatives gained a little in the popular vote, but were unable to stage any kind of comeback. They have not one member in the legislature.

B. C. Liberal leader Arthur Laing came out at the bottom of the poll in Burnaby riding, a CCF stronghold for more than 20 years.

Both the Liberal and the Conservative leaders in B.C. are without legitimate seats. Deane Finlayson of the Conservatives, like Laing of the Liberals, has been beaten at the polls.

Politics in B. C. are still dominated by Premier Bennett of Social Credit, and Robert Strachan of the CCF, leader of the Opposition.

The line-up is: Social Credit, 39; CCF, 10; Liberals two, and Independent-Labor Thomas Uphill of Fernie, who has been a member of the legislature since 1920—victor in 11 general elections, an all-time Canadian record.

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• *It makes a man mighty proud* to think of the complete confidence that his family place in him as a good provider . . .

And it makes him think hard about his life insurance . . . makes him wonder whether he has *enough* to look after them properly, if anything should happen to him.

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For Ontario's growing water shortage

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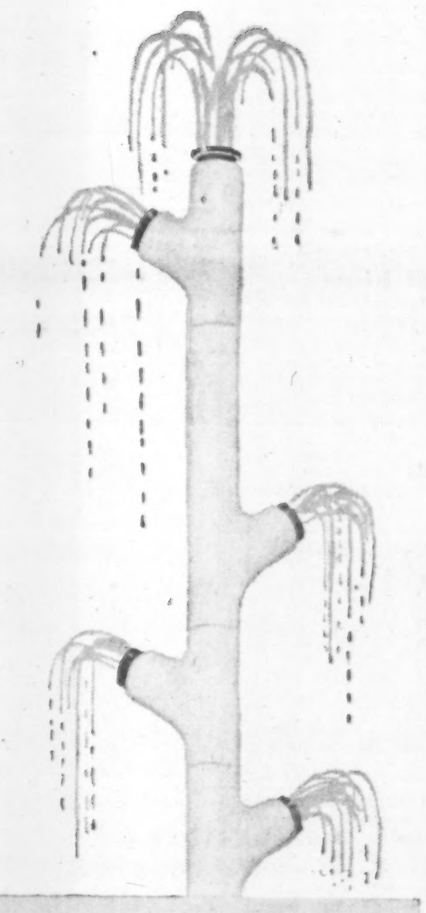

Blossoming forth right where it is needed most!

Ontario is richly endowed by nature with fresh water, though the water is frequently located some distance away from the community requiring it. The province's population growth demands the transmission of greater quantities of water over greater distances.

To meet this urgent need, Pressure Pipe Company's new Ontario plant has joined the company's Quebec plant in the production of Hyprescon pipe. Long recognized for its proven performance, Hyprescon continues to be specified by more and more of Canada's foremost waterworks engineers.

So, right at the heels of the demand—comes the supply.

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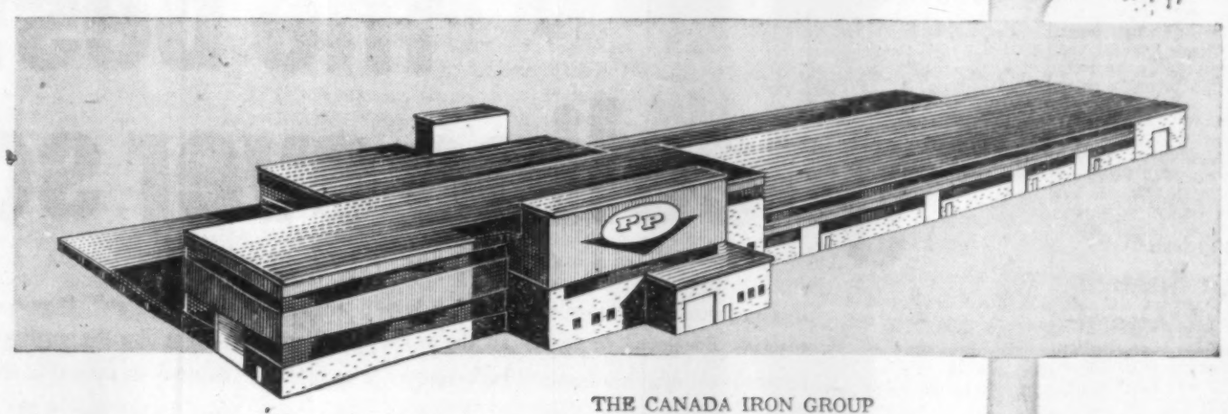

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Investment in Real Estate Here Can Cut U.S. Succession Duties

Succession duties to Canadians mean only that after death their heirs will receive less money than the estate totals and there is little or nothing they can do about it.

Canadian succession duties, however, mean an entirely different thing to U.S. residents who have discovered during the past few years that by investing some of their savings in Canadian real estate, they can lessen the bite the tax collector makes on their total estate.

It is this fact that has led to the investing of substantial amounts of U.S. capital in Canadian real estate.

At least one Canadian realty investment company, **Tankoos Yarmon Ltd.**, Toronto, started up in business in Canada within the past couple of years to specialize in investing money from south of the border in various realty ventures. Other U.S. interests have been increasingly active in the field lately.

Coupled with the lower succession duties are the equally strong attractions for realty investment of higher yield, general appreciation of property values through the expansion of the Canadian economy, and lack of capital gains taxes.

While the savings in succession duties—they are known as inheritance taxes in the U.S. — are less in Ontario and Quebec than in other provinces, they are nevertheless sufficient to be attractive even there.

On an actual basis, in Ontario and Quebec, the tax saving amounts to 10.92% of the total estate invested in Canada. In the other eight provinces, this tax saving is 19.7% of the total estate invested.

The difference is due to the fact that Ontario and Quebec succession duties base the assessment on the investor's total holdings regardless of where they are and apply this rate to the portion invested in Canada, while in the other provinces the base for succession duties is on the Canadian portion only.

This differential was noted in the Gordon Report and the recommendation was made that these two provinces should review and revise the present set-up.

Here is what happens to a U.S. estate of $2 million of which $400,000 is invested in Canadian real estate:

	Taxes
Estate all in U. S.	$449,200
Estate $1.6 million in U. S., $400,000 in Canada	498,800
Saving on U. S. Taxes	151,200

Of course, Canadian taxes must be paid on $400,000. Here is what the saving actually totals:

	Succession Duties
On $400,000 estate in Canada, excluding Ontario and Quebec	$ 72,400
In U. S. on $2 million, with $400,000 invested in Canada	498,000
Total succession duties in U. S. and Canada	570,400
Actual tax saving in eight provinces ($649,200 less $570,400)	78,800

If the $400,000 is invested in Ontario or Quebec, here is how the tax saving works out:

Duty in Ontario or Quebec on total estate	$107,500
U. S. taxes on $2 million estate, $400,000 in Canada	498,000
Total Canadian and U. S. taxes	605,500
Tax saving if invested in Ontario or Quebec ($649,200 less $605,500)	43,700

If the U.S. investor happens to be a resident of the state of New York, there are additional tax benefits. For instance on an estate as outlined above, there would be an additional saving in total taxes of $36,000.

Looking at this from another angle, it would require an estate of $2,156,000 invested entirely in the U.S. to result in the $78,800 saving available to a $2 million estate with $400,000 invested in any province other than Ontario or Quebec and an estate of $2,086,000 to accomplish the $43,700 saving in Ontario or Quebec.

These factors have naturally attracted larger investments by individuals seeking the most advantageous tax situation for their estates in Western Canada and the Maritimes. Since the present tremendous economic expansion in Canada is taking place in every section of the nation, there is no shortage of realty investment opportunities in the other eight provinces as well as Ontario and Quebec.

Trans Mountain Sept. Oil Flow 140,000 B/D

Daily oil deliveries through the **Trans Mountain** oil pipeline for the eight months to Aug. 31, 1957, averaged 178,768 b/d. Deliveries in the same period the previous year were 116,007 b/d.

Scheduled oil deliveries for Sept. are 140,000 b/d. Total deliveries for Aug. averaged 161,899 b/d.

Manitoba Reports Crude Oil Record

From Our Own Correspondent

WINNIPEG — Crude oil production in Manitoba for July was a record 541,181 bbls., biggest of any month since the industry was established, an average of 17,437 bbls. per day.

The previous high monthly production was 530,129 bbls. in October 1956.

Twenty-four new producers were brought in during the month and two previous ones were abandoned because their yields didn't warrant operation.

At July 31 the province had 835 producing wells. Cumulative production for the first seven months of 1957 was 3,489,443 and with five months to go the yield for the year will probably reach 6,000,000 bbls.

August production is likely to exceed that for July.

For the August 19 to 26 week the oil yield was 130,821 bbls., a daily average of 18,689. All but one or two of the new producing wells in July were within limits of designated oil fields.

Kingston Student Wins CCA Award

The Canadian Construction Association handed out $600 as well as book prizes last week at its western regional meeting at Jasper Park Lodge, Alberta to Canadian student winners in its annual competition for theses on construction subjects.

Top award of $150 and a book prize went to a 1957 graduate of Queen's University, Kingston, Ont., R. W. Cockfield, competing with senior engineering students at eight Canadian universities. His subject was "Sliding forms."

Nine other students each received awards of $50 and an engineer's handbook for their entries.

TOWN OF HAUTERIVE, Que., has sold $130,000 5½% 10-year serial bonds to a syndicate headed by **Lagueux & DesRochers, Garneau, Boulanger, Ltée.** for 90.57, indicating a net cost of 7.025%. The 1967 maturity includes a balance of $62,500 to be renewed for 10 years; debentures are not callable before Oct. 1, 1964. Proceeds will be used for waterworks, sewers and road works. Town's net funded debt at Dec. 31, 1956, was $61,000, and population 3,125.

Bailey Selburn Net Up 10% As Oil, Gas Sales Rise

Bailey Selburn Oil & Gas Ltd. net profit was up 10% in the first half of 1957 at $373,378 ($338,815). Higher gross revenues from oil and gas sales reported in the first quarter continued during the second quarter.

As a result proceeds from this primary phase of Baysel's operations in the first six months were up 38%. Daily average oil production in June, 1957, was 3,665 bbls., or 18.5% higher than in June 1956.

Revenues from contract drilling were $1,479,230 as against $1,950,224 in same period of 1956. Total revenues from all sources for the six months period were $3,096,988 ($3,168,034). Owing to increased operating efficiency, $1,169,574 or 38% of total was brought down to operating profit.

Construction of company's gas gathering system in the Bindloss field has been completed. On July 23, the **Alberta Gas Trunk Line** started taking gas deliveries from the company. Further development work is proceeding in other areas in which the company has property interests where natural gas production has been established.

An aggressive exploration and drilling program is under way encompassing many areas.

In the second half of the year a total of 16 exploratory wells are expected to be drilled and it is anticipated that daily oil production will be raised considerably by the end of the year.

Prospects for the balance of 1957 are "very promising" with operation expected to surpass the results of the first half, President George H. Sellers states.

GENERAL DYNAMICS CORP. at Aug. 23, had 8,006,891 common shares outstanding.

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THE BRITISH AMERICAN OIL COMPANY LIMITED

ANNOUNCEMENT

Thompson Products Appointment

GEORGE IRVINE

The appointment of Mr. Irvine as Comptroller, Thompson Products Limited, St. Catharines, has been announced by J. R. Leach, Secretary-Treasurer of the company. Mr. Irvine is a chartered accountant and before joining Thompson Products in 1953 was with Clarkson, Gordon and Company in Hamilton and Toronto. Thompson Products are manufacturers of automotive, aircraft and mining components.

GENERAL MOTORS CORP. on Sept. 6 issued a further 82,611 common shares under company's savings stock purchasing program for salaried employees in the U.S., bringing number of common shares outstanding to 280,672,482.

Cut Out the Blues

Canada's Economic Progress Will Surge

Despite occasional dips in our economy, there is plenty of cause for optimism about Canada's prosperity.

In a recent speech to the annual convention of the Newspaper Advertising Managers' Association of Eastern Canada, President Rhys M. Sale of Ford Motor Co. of Canada reviewed the factors which contribute to the strength of our economic outlook.

By RHYS M. SALE

It is high time we Canadians adjust our thinking a bit. This economy of ours has been bowling along at a merry pace for 10 or 12 years. Too many people have begun to take it for granted that every year will be better than the last, that every year our sales curves will sweep upward and our revenues will increase. That kind of business philosophy is unsound and unrealistic.

I am absolutely confident that over the long term, the Canadian economy will soar to magnificent heights. Barring war or calamity, nothing can halt our economic progress.

At the same time we have to face the certainty that the road to progress will have occasional dips as well as peaks, and a few flat spots in between. The important thing for us to do is to recognize these economic wrinkles for what they are, and refuse to be panicked into a recession or depression psychology by purely temporary situations.

The best managed and most foolproof economy can be affected by conditions wholly beyond the control of governments, banks, corporations, labor unions, or any other agency. It can be disturbed by an unusually severe winter, or by a hot, dry summer. It can be shaken by the psychological earthquakes of war rumors on the other side of the world, and by political happenings in other countries.

In Perspective

We cannot do much about such things, except to keep them in proper perspective, but we can be level-headed about things that happen within our own borders. Let us admit, for example, that some sectors of the Canadian economy have been less buoyant this year than las and even that there are certain soft spots which warrant concern.

The western wheat crop is smaller than usual. The electrical appliance industry is said to be in a slow period. Stock market values have dropped sharply, mainly under the influence of the U. S. markets. Demand and prices have dropped in the base metals industry, and the construction industry has not been as active as in recent years.

But for every cloud on the horizon, there are a million rays of sunshine. For every negative, there are a hundred positives.

This year our nation will have added some 600,000 new consumers, half by natural increase, half by immigration. Our population will pass the 17 million mark early in 1958. We are swiftly approaching the time when our bumper crop of war babies will be reaching maturity and forming family units, thus creating vast new markets.

There are more people at work in Canada than ever before, and generally at higher wages. The nation's labor force has swelled from 5.9 million in July, 1956, to 6.1 million in July of this year.

The economy has been providing jobs for these new people in the labor force at an unprecedented rate. Whereas there were 58 jobless persons for each 1,000 in the national labor force in July, 1956, there were only 37 per 1,000 in July, 1957.

Canadian consumers are spending freely. Total retail trade for the first half of 1957 was 4.6% higher than the first six months of last year.

Installment debt incurred in the first half of this year was less than that incurred to June 30, 1956, and, moreover, repayment of installment debts was $100 million higher than in the same period of last year.

The reserve spending power of Canadians has been increasing. Personal savings deposits in banks at the end of June amounted to a record $6.2 billion, $300 million higher than a year ago.

Housing construction is being stimulated by two big injections of mortgage money—$150 million by the chartered banks a few months ago, and a similar sum committed only recently by the federal government.

Gradual Climb

Facts such as these, and many like them, are the foundation for my optimistic outlook.

I believe there will be a gradual climb from the current economic plateau over the next few months, and that many segments of business will be re-stimulated. Many of us are looking hopefully for good news in the first budget to be brought down by the new government at Ottawa, including some long-awaited tax adjustments.

The biggest problem facing the government, and the people of Canada, is that of inflation. Rising costs continue to push up prices, with an inevitable effect upon the cost of living.

The automobile, and the automobile manufacturer, are by no means immune to the pressure of the cost-price spiral.

The pressure of costs will compel motor car manufacturers to hang higher price tags on virtually all makes of automobiles with the introduction of the 1958 models. Indications are that the increase will be at least 3% to 5%.

It would be foolish for me to argue that car prices are not high. They are.

Generally, however, they are in keeping with the economic world in which we live. They reflect, and in many ways symbolize, the relatively high standard of living we Canadians demand for ourselves.

They are a part of the same pattern as ranch homes in the suburbs, automatic washers and driers, television, home freezers, air conditioning, and all the other comforts and luxuries to which so many Canadian families have up-graded in the past ten years.

They reflect, too, the highest personal income levels in our nation's history.

Inflation Only Flaw

Let me sum up briefly:

1. I see nothing in the Canadian economic picture today that even hints at a recession or depression.

2. Barring war or some other unforeseen calamity, nothing can stop Canadian economic progress.

3. The idea that the bottom has fallen out of the Canadian automobile market is false. Total retail deliveries in 1957 are likely to make this the second best year in the history of the industry.

4. The only flaw in the Canadian economy warranting grave public concern is the continuing pressure of inflation—a condition that demands the best efforts and whole-hearted co-operation of governments, business, labor, the press, and the public.

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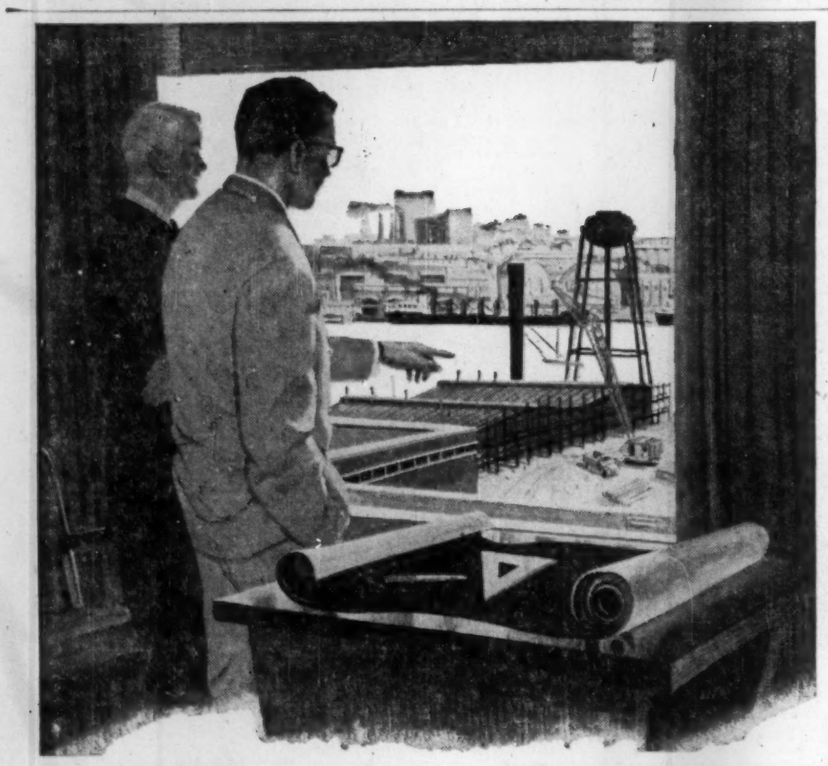

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BANKING CORRESPONDENTS THROUGHOUT THE WORLD

B-57A

U.S.-Canada Meeting Set For Montreal

Special Correspondence

WASHINGTON—A meeting takes place in Montreal next month of the newly-formed Canada-U.S. Committee established by the National Planning Association in the U.S.

Robert M. Fowler, president of the Canadian Pulp and Paper Association is the Canadian co-chairman of the committee and R. Douglas Stuart, former U.S. ambassador to Canada, is co-chairman.

The committee was established to stimulate understanding of the problems between the two countries. "We're taken too much for granted by Americans," Fowler has commented. "That's right," Stuart agrees, "You don't take your best friend for granted if you want to keep him a friend.

Forty to 50 Canadians and Americans are members of the committee which took nearly three years to set up.

Major problems to be tackled include: Columbia River development; U.S. importation of Canadian oil and natural gas; the general imbalance of trade between the two countries; St. Lawrence Seaway and tolls; disposal of farm surpluses; reciprocal taxation; and educational and cultural relationships.

The list of Canadian members of the Committee reads like a Canadian Who's Who and includes such people as: Brooke Claxton, former defense minister; Donald Gordon, chairman of the **Canadian National Railways**; N. A. M. MacKenzie, president of the University of British Columbia; Rhys M. Sale, president of the **Ford Motor Co. of Canada**; bankers James Stewart of Toronto and Graham Towers of Ottawa and Alexander Stewart, president of the University of Alberta.

Okanagan Group Earns $88,214

Net profit of Okanagan Helicopters Ltd., Vancouver, was $88,214 in the first six months of 1957. Net loss in first-half 1956 was $101,460. An interim dividend of 5c per share has been declared.

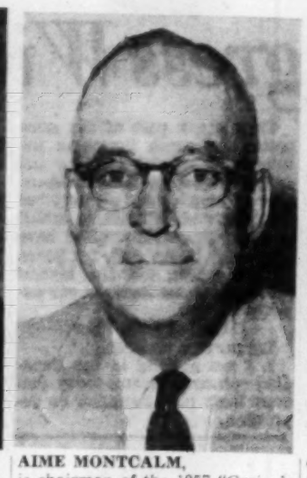
Company is operating 45 helicopters across Canada. In addition, it has obtained a long-term contract to operate 10 RCAF Sikorsky S-55s on the Mid-Canada Line along with four Okanagan S-55s.

They Lead Community Chest Drives

MARCEL FORTIER,
is this year's chairman of the Quebec Red Feather Campaign (le Conseil Central des Oeuvres de Quebec). Mr. Fortier was born and educated at Levis, joining the firm of his father, **Laval-Edouard Fortier,** funeral director, and later becoming the founder of **Fortier Dairy.** He bought his father's firm in 1937 and has been president since. He is well known in Quebec business and social groups.

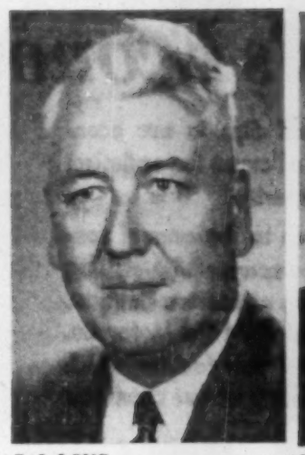
MRS. LORNE M. FISCHER,
is the new campaign chairman of the Guelph Community Chest. The mother of three children, 9, 6 and 3, her husband is owner and manager of the **Royal Hotel.** She is a director of the chest, a member of the Edward Johnson Chapter, I.O.D.E., past president of Alpha Gamma Beta Sigma Phi Sorority and a committee member of the Children's Aid Society.

F. H. WALKER,
president of **Walker Bros. (Sarnia) Ltd.,** retail merchants, is 1957 chairman of the Sarnia Community Chest campaign. Mr. Walker has always lived in the Sarnia area and is a member of the Board of Education, an elder of St. Paul's United Church and a director of the Y.M.-Y.W.C.A., Rotary Club, **Sarnia Cemetery Co.** and **Lambton Loan and Trust Co.**



AIME MONTCALM,
is chairman of the 1957 "Crois de Caritas" campaign at Three Rivers, Que. Married, with seven children, he is managing director of **Three Rivers Chevrolet Motor Sales** and director of **Chevrolet Motor Sales of Montreal.** He is also president of the Regional Committee of the Air Cadet League of Canada, a former grand knight of the Knights of Columbus and an official of several **charitable organizations.**

OSWALD PARENT,
is 1957 campaign chairman of the Federated Charities of Western Quebec. Married, with three children, Mr. Parent practices accountancy at Hull, Que., under the name **Oswald Parent & Co.** He is treasurer of the Provincial Liberal Federation, was elected member for Hull of the Quebec Legislative Assembly last year, and was president of the Western Quebec Union of Chambers of Commerce 1955-57.



C. J. LONG,
is this year's campaign chairman of the Community Chest of Edmonton. Mr. Long has been active in Community Chest campaigns since 1945, having served as canvasser, team captain and member of the campaign council. He is immediate past president of the Edmonton Rotary Club, has served as president of the Edmonton District Boy Scouts and the Alberta Boy Scouts.

R. S. H. BRADBROOKE,
general manager and secretary of **Saskatoon Brewing Co.,** is general chairman for the 1957 campaign of the Saskatoon Community Chest. Born and educated at Yorkton, Sask., Mr. Bradbrooke began his business career as a clerk in the Yorkton branch of **Canadian Bank of Commerce.** He moved to the brewing company in 1939 and 10 years later became manager. He's a former chairman of the Western Canada Brewers' Association.

A. JOHN ELLIS,
is campaign chairman of the 1957 Halifax-Dartmouth United Appeal. Born in Montreal, Mr. Ellis entered the **Bank of Montreal** in 1933. He has worked for the bank at various Canadian points, has traveled for it extensively in England and Europe, and is now superintendent of the bank's Atlantic provinces district. During the war, he served overseas as an infantry and staff officer.

The September supplement of our **Canadian Metals Survey** contains estimates of the 1957 Earnings of 12 established Mining Companies. Copies available on request.

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Selling Stock Without News Menace to Mining Industry

Sales made in rapid succession to the extent of 10,000 shares in the absence of news from the property is a menace to the mining and brokerage industry, O. E. Lennox, chairman of the Ontario Securities Commission comments in a recent decision cancelling registration of Henry Bauman as a salesman.

In addition, Mr. Lennox notes a "false representation made to the purchaser" regarding a merger of two companies on a share-for-share basis with prices of the shares at 32c and 70c.

The full decision of the chairman which appears in the July-August bulletin of the OSC follows:

Henry Bauman — Salesman: — In February the commission received a complaint respecting sales made by Bauman over the long distance telephone in May and June of 1955. If the complaint could be substantiated, it presented a serious situation.

Accordingly, the commission directed enquiries to 15 people recently contacted by him by telephone. After 12 replies were received, he was examined regarding the issues raised by the original complainant and the replies received.

Bauman admitted that the form of enquiry (or questionnaire) issued by the commission was perfectly fair and that if he had made certain statements attributed to him, he would be guilty of using high-pressure sales methods.

However, he denied having made the statements in question.

First, I intend to consider the circumstances surrounding the sale of a total of 10,000 shares of a speculative uranium issue to the complainant in 1955. The prospectus accepted for filing, as of Feb. 10, 1955, discloses that the property was acquired by the issuing company in Jan. 1955 and consisted of nine unpatented mining claims recorded by the vendor to the company in June 1953.

Extended Time

The Mining Court, by order dated June 22, 1954, extended the time for the performance of required assessment work until May 31, 1955. Exception cannot fairly be taken to the initial sale of 1,000 shares at 28c on May 10, 1955, as the property, no doubt, could be considered a reasonable speculation due to its location.

If the assessment work was performed within the time stipulated, it was not recorded and the claims became open for re-staking and were lost.

Bauman, at the time, might not have been aware of these facts when he sold the complainant a further 5,000 shares at 34c on May 31 and a further 4,000 shares at 38c on June 13, 1955. However, in the absence of any news from the property, how could he have made sales on this scale unless high-pressure methods, as alleged, had been used.

These additional sales, in my opinion, represent overloading—not of the pathetic type which deprives a purchaser of his means of livelihood, since the purchaser was a professional man—but of the type which undermines people's confidence in Canadian mining and is the cause of embarrassment and concern to all reputable brokers and dealers.

In view of the treatment afforded this purchaser, I find it difficult to place much reliance in the denial evidence offered in rebuttal.

Doctor's Evidence

Bauman's qualifications, however, are not being judged as a result of a single complaint. The most damaging evidence, produced as a result of our enquiries, is to be found in an undated letter, written by a doctor residing in the U. S., which was received on March 25, 1957.

The letter is couched in friendly terms and the writer is still admittedly friendly, as he has since purchased stock from Bauman.

The doctor states that he was advised by Bauman that the company, the shares of which were being offered at 32c, was in the process of merging with another company on a share-for-share basis. This merger, apparently, presented a most attractive proposition since the shares of the other company were being quoted at 70c, according to the doctor.

Bauman denies having made any reference to the merger and admits, in effect, that if he had made such a statement it would be entirely unfounded. He, no doubt, appreciates that, in this instance, fraud as opposed to high-pressure methods is involved.

The doctor obviously had no intention of involving Bauman, as he had no reason to believe that the statement made in January or February was, in fact, false since the merger might still be pending when he answered our enquiry in March.

He has, in the result, unwittingly furnished as damaging evidence as could be reasonably expected in connection with representations made over the telephone—evidence which cannot be disregarded, unless the commission is prepared to condone fraud without regard to the public interest.

This friendly letter also innocently credits Bauman with making statements similar to those referred to in other replies and, accordingly, lends material support to the other allegations which otherwise might not be so convincing. I refer to the following excerpts from the doctor's letter:

"Mr. Bauman told me it was the hottest issue they had."

"We should be able to double our money or close to that figure within a couple of months or so."

"He also told me that Mr. X had been in London getting the financing for . . . work out."

Not Aware

The anticipated increase in the market value is common to many complaints. Two others imply that they were impressed by the plans for further financing as represented. Bauman admitted that he was not aware of any plans for future financing.

The evidence, as already indicated, does not attempt to substantiate the statements under consideration. Bauman, however, denies making them or, in the alternative, submits he was misunderstood. If, for instance, the word "hot" was used it referred to the locality and not the particular issue being offered.

In my opinion, sales made in rapid succession to the extent of 10,000 shares, in the absence of any news propertywise, is a menace to the mining and brokerage industry.

The evidence concerning the proposed merger is most convincing. It does not follow the usual pattern of generalities but stands out as a specific, false representation made to a purchaser who knew that the companies involved were under the same management and prompted him to write—"this made sense to me."

On the strength of this he evidently believed—and may still believe—a merger would be effected on a share-for-share basis, despite the disparity between the market price of the two issues as known to him at the time.

Bauman's standards, as a securities salesman, have been demonstrated by his successive sales to the original complainant. These sales, and the conditions under which they were made, are a matter of record: otherwise, his objectionable sales methods are fairly demonstrated through replies received which are materially and innocently substantiated by the friendly letter to which reference has already been made.

The combined result is formidable, particularly when coupled with the merger fabrication. I accept the Doctor's version of the representations made and consider this alone would warrant cancellation.

An order will be issued forthwith cancelling the registration of Henry Bauman as a salesman subject, of course, to the usual right of appeal.

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— PULLS BETTER OFF ROAD, TOO!

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On hard paving, its deep-ribbed, wide center treads move along smoothly without the tire-wearing, equipment-killing vibrations so often set up by ordinary type heavy-duty tires. As a result, you get more original tread miles. And, heavy lug bars give you all the pulling power you need for off-the-road duty.

Firestone Super Mileage Lug tires have 60% deeper tread to give you more low-cost miles. More than that—they are built with husky, Safety-Tensioned *Gum-Dipped* cord bodies. This exclusive Firestone process gives a stronger tire body and makes it possible to get more retreads on every tire.

Any way you look at it, you'll save money with Firestone Super Mileage Lug tires! If you operate dump trucks, cement mixers, logging, mining or any other heavy-duty trucks, it will pay you to contact your Firestone Dealer or your Firestone Store now for the best deal you ever got on the longest wearing, most dependable tire ever built for on- and off-the-road performance!

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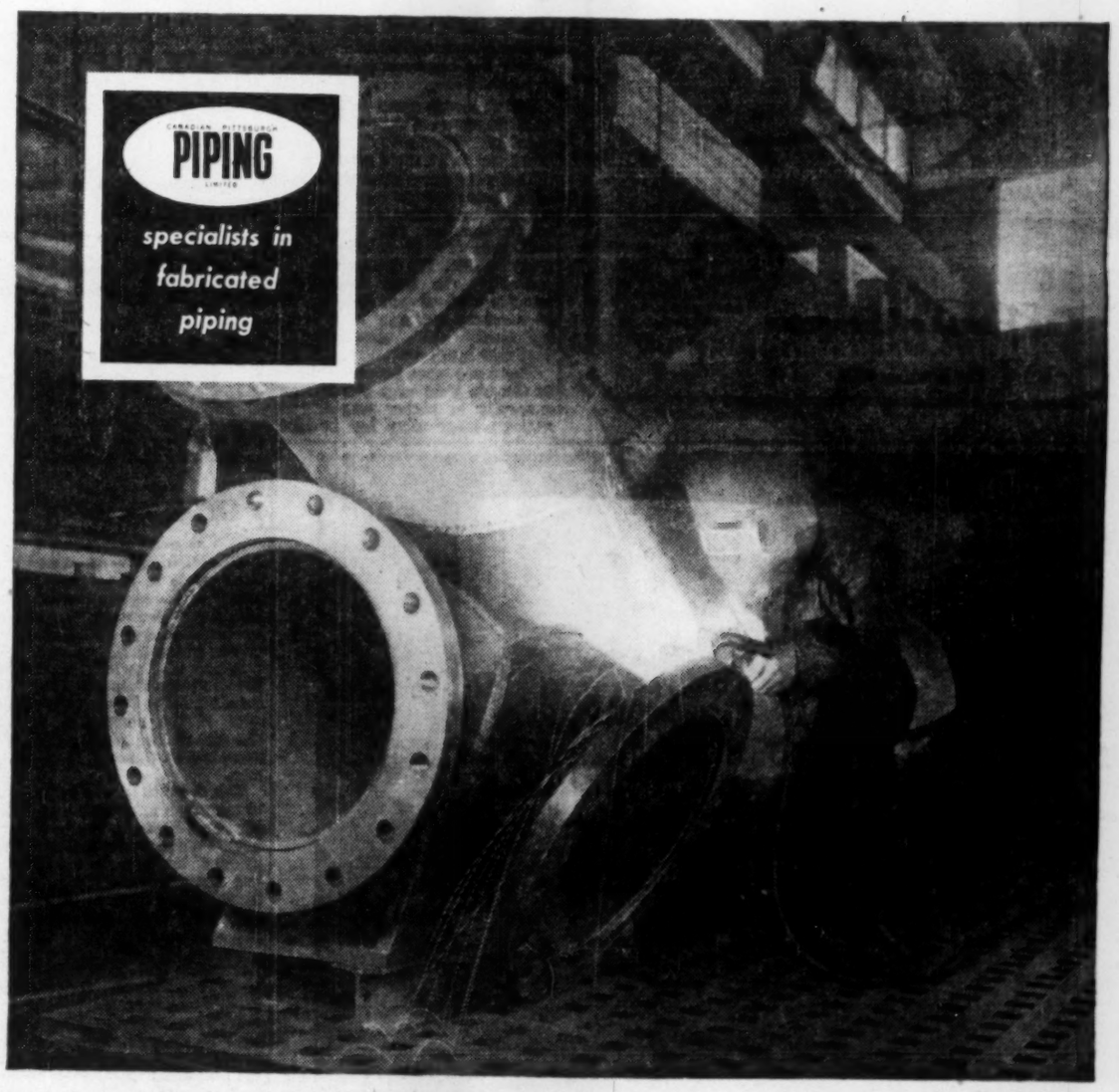

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Business Courses Draw Thousands

Between 4,000 and 4,500 persons will continue their business and professional training this winter in University of Toronto's business and industry extension courses.

Enrolments in many of the courses—which take in every field of modern business—will be limited. Instruction in all will be by leaders in the fields.

Seven of the courses will be entirely new in subject and content.

Probably the feature course among the new offerings will be **Canada's Major Industries**, directed by Glenn H. Curtis, **Stone & Webster Canada**, given Monday evenings at 7:30, beginning Oct. 7.

The initial class period will be devoted to defining and discussing primary and secondary industries of Canada; in each of the succeeding nine two-hour sessions, an outstanding guest speaker will give a lecture on a major industry.

Other new courses are:

Business Taxation. Sixteen lectures, Wednesdays at 7:30, beginning Oct. 23; lecturer, J. R. Hutchinson, **Wood Gundy & Co.** Course is designed to give the executive an understanding of those aspects of taxation which will frequently confront him when making business decisions.

Food in Industry. Twenty lectures, Tuesdays at 7:30, beginning Oct. 8; lecturer, Miss Elizabeth Upton, department of household science, U. of T.; offered in co-operation with the Food Brokers Association of Canada. Course will set out basic principles and procedures in production, processing, merchandising and distribution of food.

Industrial and Business Administration I. Ten lectures, Tuesdays at 7:30, beginning Oct. 22; lecturer, W. A. Dimma, assistant to the president, **National Carbon Co.**, division of **Union Carbide Canada.** Course covers the highlights of administrative organization and practice for those who can't meet the admission requirements for Industrial and Business Administration II (see below).

Money, Banking and Finance. Sixteen lectures, Mondays at 7:30, beginning Oct. 21; lecturer, Dr. E. P. Newfield, Department of Political Economy, U. of T. Course will outline and discuss theory and practice of money, banking and the capital market, with special reference to Canada.

Personnel Administration, Training Principles and Practices, Part A. Sixteen sessions, Wednesdays at 7:30, beginning Oct. 23; course director, Philip Moate, assistant to director, personnel development, **Canada Packers.** Series of lecture-discussions of special interest to those working in staff training, for graduates of Personnel Administration Introductory (see below). Part B will be offered next year.

Physical Chemistry. Twenty lectures, Wednesdays at 7:30, beginning Oct. 9; lecturer, Dr. J. C. Polanyi, department of chemistry, U. of T. A refresher course, offered in co-operation with the Chemical Institute of Canada, Toronto Section, for graduate chemists and chemical engineers.

In addition, the **Purchasing** course has been re-organized. Sponsored by the Purchasing Agents' Association of Toronto, the course will be more general than before. Half of the content will be concerned with economics, accounting and law; the remaining half will deal with specific administrative problems faced by a purchasing agent. Sixteen sessions, Tuesday at 7:30, beginning Oct. 22. Course chairman, Thomas Luke, **Arthur S. Leitch Co.**

Here are details of other business and industry courses offered by U. of T. extension:

Introductory Accounting. Twenty lectures, Thursdays at 7:30, beginning Oct. 10.

Advertising. Twenty-two lectures, Thursdays at 7:30, beginning Oct. 10.

Analysis and Interpretation of Financial Statements. Twenty sessions, Mondays at 7:30, beginning Oct. 7.

Appraisal of Real Estate I and II. Twenty lectures each. I—Thursdays at 7:30, beginning Oct. 10. II—Mondays at 7:30, beginning Oct. 7.

Business Communications — Oral. Ten sessions, Wednesdays at 7:30, beginning Oct. 9 and Jan. 8. Two courses offered.

Business Communications — Oral Advanced. Ten sessions, Mondays at 7:30, beginning Oct. 7 and Jan. 6. Two courses offered.

Business Communications — Written. Ten sessions, Wednesdays at 7:30, beginning Oct. 9 and Jan. 8. Two courses offered.

Business Law. Twenty lectures, Thursdays at 7:30, beginning Oct. 10.

Construction Management. Ten lectures, Tuesdays at 8, beginning Oct. 8.

Cost Analysis and Financial Control. Twenty lectures, Wednesdays at 8, beginning Oct. 9.

Elements of Economics. Sixteen sessions, Mondays at 7:30, beginning Oct. 21.

High Speed Computers and Data Processing. Three courses—high speed data processing; programing for digital computers; engineering techniques for digital computers. Each course 20 sessions, Thursdays at 7:30, beginning Oct. 10.

Industrial and Business Administration II. Sixteen lectures, Tuesdays at 7:30, beginning Oct. 22.

Industrial Management. Twenty lectures, Thursday at 7:30, beginning Oct. 10.

Internal Auditing. Two courses, basic and advanced; 10 lectures each; both held Tuesdays at 7:30. Basic course begins Oct. 8; advanced, Jan. 7.

Investment in Securities. Eleven lectures, Wednesdays at 8, beginning Oct. 2.

Lighting Fundamentals. Starting date etc. to be announced.

Marketing. Sixteen sessions, Thursdays at 7:30, beginning Oct. 24.

Motion and Time Study. Sixteen sessions, Wednesdays at 7:30, beginning Oct. 23.

Municipal Government. Sixteen lectures, Wednesdays at 7:30, beginning Oct. 23.

Office Management. National Office Management Association, Toronto Branch, sponsors two courses, fall and spring (beginning Oct. 8) and spring (Jan. 7) of 10 sessions each, Tuesdays at 7:30.

Personnel Administration Introductory. Sixteen sessions, Wednesdays at 7:30, beginning Oct. 23.

Personnel Administration—the Business Community. Sixteen sessions, Thursdays at 7:30, beginning Oct. 24.

Personnel Administration—Labor Relations. Sixteen sessions, Thursdays at 7:30, beginning Oct. 24.

Physical Metallurgy. Ten lectures, Tuesdays at 7:30, beginning Oct. 8.

Quality Control. Twenty lectures, Mondays at 7:30, beginning Oct. 7.

Workshop in Sales Management. Fall term workshop sponsored by Advertising and Sales Club of Toronto. Ten sessions, Mondays at 7:30, beginning Oct. 7.

Further information on these courses may be secured by writing to Department of Extension, University of Toronto, 65 St. George St., Toronto.

In addition, the department conducts two sets of special lecture programs. One, for the society of Industrial and Cost Accountants, leading to the designation, R.I.A., involves four years of study in seven subjects, plus the completion of a thesis.

The other, for the Canadian Industrial Management Association, leads to the designation, C.I.M., and takes four years.

Information on these programs may be secured by writing to Secretary-Treasurer, Society of Industrial and Cost Accountants, 31 Walnut St. South, Hamilton; or to Executive Secretary, Canadian Industrial Management Association, Box 19, Toronto 18, respectively.

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Promising New Plastic Product For Packaging

Polymethylene, introduced to Canadian markets recently by **Plax Canada Ltd.**, well-known manufacturer of plastic bottles and custom-made containers, is claimed by company officials to be "the most exciting packaging product to come along in years."

Bottles made with polymethylene are said cheaper than polyethylene because additional strength and rigidity can be obtained with thinner walls.

This characteristic makes them competitive with tin or glass containers, it is said. Polymethylene is about four times as rigid as polyethylene and has twice the tensile strength, Plax officials claim.

End uses include packaging of foods, detergents, waxes, cleaners, and polishes.

Polymethylene containers are unbreakable and will not rust, corrode or stain. The plastic will withstand temperatures ranging from —60 to 250 degrees.

It forms a barrier against water vapor transmission and if the contents of a bottle should freeze the polymethylene will not be affected, it is said.

ARCAN CORP. net profit for year ended March 31, 1957, was $52,798, compared with $18,366 in 1955-56. No depreciation was taken in either year. Company is now specializing in manufacture of ventilating equipment for industrial plants and materials handling equipment.

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In a few brief years "ORLON"* has won a prominent place in the fascinating new world of man-made textile fibres.

"ORLON", the acrylic fibre developed by Du Pont in the U.S., makes soft, luxurious sweaters which stay good-looking with minimum care. Sweaters which wash easily without matting, won't shrink or stretch and keep their original comfort, colour and feel for a long, long time.

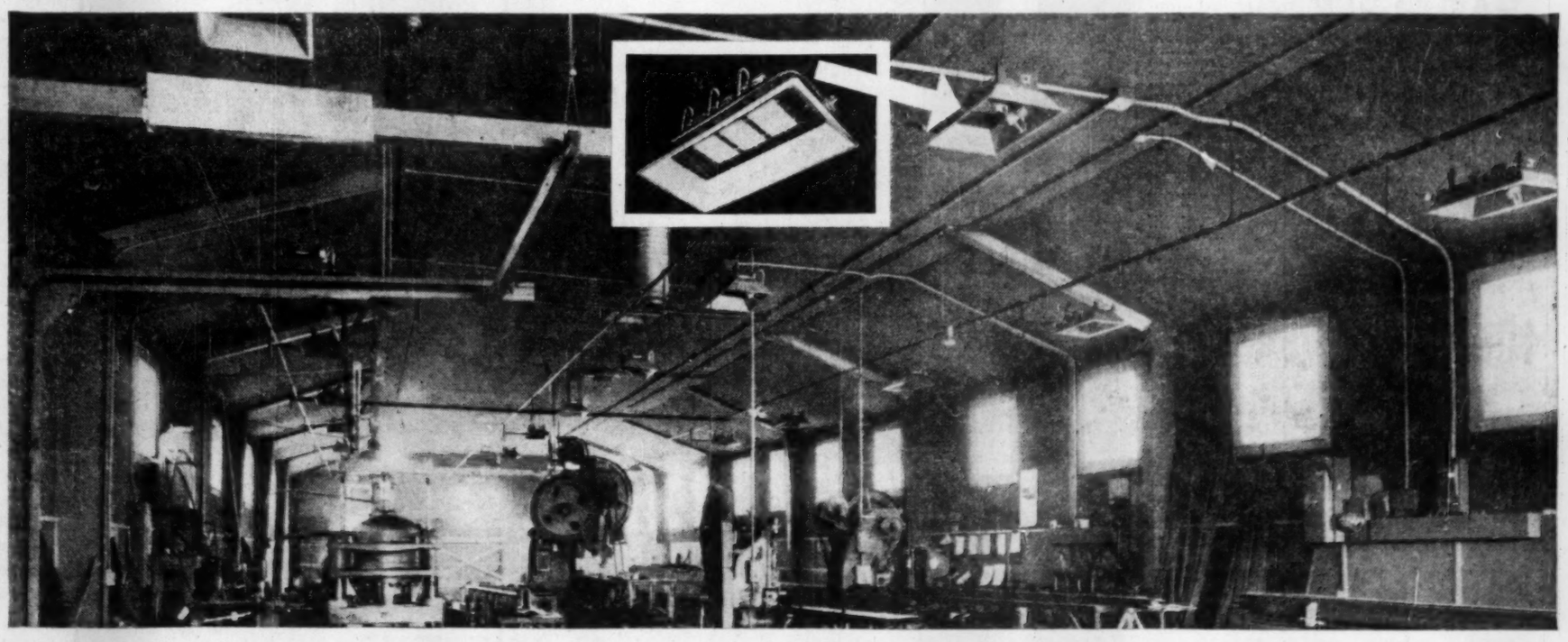
"ORLON", blended with other fibres, makes suitings and uniform fabrics with built-in neatness, shirtings and many more products. Garments which hold their press much longer, shed wrinkles, and keep drape and shape in rain or snow, or even on the hottest, muggiest days. In Canada the tremendous interest in "ORLON" created a wide demand for the product. In line with its policy of meeting Canadian needs from Canadian plants, the Du Pont Company of Canada (1956) Limited now produces "ORLON" in an $8,000,000 plant at Maitland, Ont.

In Du Pont of Canada laboratories, Du Pont research continues to seek out more uses for man-made textile fibres . . . and the other new developments which modern chemistry can bring to Canada. For further information about "ORLON" or any other Du Pont product, write Room A-10, Du Pont Company of Canada (1956) Limited, Box 660, Montreal, P.Q.

Don't miss "Father Knows Best" featuring Du Pont Nylon, Sundays—Coast-to-Coast TV.

DU PONT CANADA

"ORLON" is Du Pont's registered trademark for its acrylic fibre.



GAS-FIRED INFRA-RED HEATERS PROVIDE PERFECT LOW-COST HIGH-BAY HEATING

High-bay buildings, such as the Winnipeg factory shown above, could never be satisfactorily heated in the past. Now, with the amazing new Perfection Schwank Infra-Red Gas Heaters, this and scores of other hard-to-heat buildings are getting *perfectly controlled heating without ducts, blowers, heat exchangers,* at lower cost than conventional methods. The Perfection Schwank heater operates like a miniature sun, heating only the objects the rays touch . . . keeps people warm. Heat is not wasted in the vast upper reaches of factories, warehouses, churches, auditoriums, etc. *BTU requirements are based on the square feet of floor space to be heated,* not on the cubic content of the building.

For a demonstration of this new concept in gas heating, contact the Perfection Schwank Infra-Red Heater distributor nearest you. Hupp International, Div. of Hupp Corp., Cleveland 10, Ohio. Licensee American Infra-Red Radiant Co.

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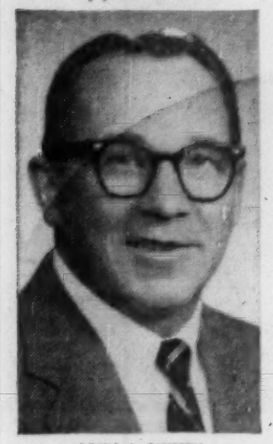
ANNOUNCEMENT

General Foods, Limited Appointment



LOUIS J. SMITTEN

H. E. Alexander, Vice-President, Finance, General Foods, Limited, Toronto, announces the appointment of Mr. Louis J. Smitten as Controller of the Company.

Mr. Smitten, who was born and educated in New York, joined General Foods Corporation in 1954, specializing in cost and budget procedures and their application to profit planning. In 1955, he became Manager, Budget and Analysis of General Foods, Limited, Canadian subsidiary of the Corporation.

Mr. Smitten was formerly nine years with Stevenson, Jordan and Harrison Inc., Management Engineers, as a consultant in profit planning techniques and modern management controls. He is a director of the Toronto chapter, Society of Industrial and Cost Accountants of Canada.

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Brisk Demand for Offices Hikes Western City Rents

A trend to higher office rents in western cities and brisk demand for space in Montreal and Toronto are highlights of the current real estate investment picture in Canada.

In Vancouver, office rental rates are estimated to be up from 10% to 15% over last year, and the demand for prime space is believed likely to result in the rise continuing. The Utah Building, considered one of the city's prime air-conditioned modern structures, is bringing from $4.65 to $4.85 a sq. ft.

In Calgary, a great amount of new construction in the last 10 years has failed to relieve office space shortage there. With few small units—1,000 sq. ft. to 2,500 sq. ft.—available, rentals are being made at about $5 a sq. ft.

In Edmonton, office rentals also appear to be on the increase with current rates running from $4.50 to $4.75 per sq. ft. A new 11-story office building there has been fully rented and demand for space far exceeds supply.

Winnipeg and Regina are experiencing similar conditions.

Montreal and Toronto are providing a ready market for renting or leasing new offices, shopping centres and apartment houses.

These are the results of a trans-Canada survey just completed by Elliot N. Yarmon, president of **Tankoos Yarmon Ltd.**, Toronto-based realty investment company which specializes in handling funds from the U. S.

He reports that throughout the U. S., interest in long-term investment in Canadian real estate has never been as great as at present.

Yarmon found that while the situation in Montreal has been highlighted by the recent announcement of a multi-million dollar plaza in the mid-town area, there are many other office buildings, apartment houses and shopping centres in various stages of construction throughout the metropolitan Montreal region.

Commercial construction, the building of major apartment houses and shopping centres in the metropolitan Toronto area continues this year at a near record level and indications are that this situation will continue for some time to come.

While new construction has slowed in Western Canada in recent months, the rising trend of office rental rates in almost every western city is indicative that additional buildings will be required to meet the demands of an expanding economy.

More Shopping Centres

While there is a conspicuous shortage of mortgage funds in Vancouver for housing, money is not as difficult to obtain for office buildings and shopping centres. New office buildings such as **McMillan Bloedel, Shell Oil** and the Utah Building are renting well.

Shopping centres, generally being built through sale-lease-back transactions, are being developed in practically every western urban centre.

In Vancouver, a centre of mammoth proportions is being planned by **Woodward's** department store. The Greater Edmonton Shopping Centre is being expanded by 30%. A major new development in the north section of Calgary is in the advanced planning stage.

Interest rates. Yarmon states, are lower in Calgary and Edmonton at from 6¾% to 7¼% than in Vancouver where they are 7% to 7½%.

In the east, interest rates are in the neighborhood of 7%.

Stratford Move for Industry Caught Speculators Napping

First details of a top-secret move by Stratford, Canada's Festival City, to secure land for industry at reasonable cost in good locations were announced this week—and caught possible land speculators napping.

Stratford Industrial Commission, with several potential new industries already nibbling the bait, has taken five-year options from 16 owners on 1,200 acres in adjoining Downie Township.

The City Council this week endorsed a plan for annexing the land, thus enlarging city boundaries by a little more than one third, and a preliminary hearing was due late this week by Ontario Municipal Board for approval.

The land, fully serviced with power, water, road, rail and other facilities is expected to be sold by the city at under $2,000 an acre to suitable industry.

Local Industrial Commissioner Tom Flood reports that several prospective industrial purchasers are already in touch and two are prepared to buy once the project goes through.

No opposition is expected from the township, and a comprehensive campaign for new industries will be launched as soon as the Municipal Board approves the annexation.

The industrial area is on the city's southwest along highway 7 to London and has a main London-Kitchener-Toronto CNR line running through it. At present, it is mostly farmland, although the city annexed one corner earlier when **Canadian Westinghouse** built its fractional horsepower motors plant at Stratford.

Near the new area are several recently built plants: **Muirhead Instruments, American Marsh Pumps, United Co-operatives of Ontario,** and **Neuhauser Hatcheries.**

But the project marks a definite move by the 20,000 population city to spread its industry. Up till now, new industry has generally located on the eastern or Toronto side. In recent years, **Fram Canada Ltd., Blackstone Corp., Fischer Bearing** and **Samsonite of Canada** have built new plants there in the same general area as older firms like **Kroehler** and **Imperial Furniture.**

Marshall-Wells Acquires Stock

Marshall-Wells of Canada Ltd., Winnipeg, has acquired the stock inventory, accounts receivable and goodwill of **Gordon & Belyea Ltd.,** Vancouver. Reported price is $5 million.

Both organizations will retain their separate identities under a new organization to be called **Marshall-Wells B. C. Ltd.**

The amalgamation does not involve the common stock of Gordon & Belyea nor does Marshall-Wells assume the liabilities of Gordon & Belyea.

Gordon & Belyea will use the proceeds for an expansion program involving substantial capital outlays, it is understood.

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STETSON "Shaped-to-wear" hats make an immediate hit with smart men because they're completely *right* at the first "try-on". They come from the factory with creases and dents already moulded in—*where* they should be, *as* they should be. And Stetson "Shaped-to-wear" hats *stay* right indefinitely. They're "aquanized" against showers, incorporate traditional Stetson quality and value.

Stetson prices: $9.95, $11.95, $15 and up.

Smart "Shaped-to-wear" styles are also produced by MALLORY—a famous brand name since 1817, and one of the Stetson Group of Companies.

Stetson Heritage "Shaped-to-wear"

Company Reports

Financial

Laurentide Acceptance Corp. net profit for eight months ending June 30, 1957, amounted to $337,339. In the 12 months ending Oct. 31, 1956, net profit was $387,819. Company's fiscal year-end has been changed from Oct. 31 to June 30.

Total consumer contracts financed for purchase of automobiles, household appliances and sundry during the eight month period came to $18 million, approximately the same as in the corresponding period a year earlier, states President Roland Therien.

At June 30, company held 31,012 individual consumer contracts totaling almost $24.3 million, an average of $783 per contract.

With the opening of a new branch at Seven Islands, Que., last Nov., company now operates 12 offices and further expansion is planned.

At the close of the eight months period, $105,500 in series "A" and "B" debentures were converted into Class "A" shares. Company also purchased and cancelled $28,000 in series "A" debentures.

In May of this year, shareholders exchanged 100,000 Class A shares for the same number of Class A shares of **Imperial Investment Corp.,** Vancouver, a subsidiary of **Power Corp. of Canada,** Montreal.

Imperial Investment operates in Western Canada a business similar to Laurentide Acceptance. It recently opened its first branch in Ontario.

INCOME ACCOUNT

	8 mos. ended June 30 1957	12 mos. ended Oct. 31 1956
Net earnings†	$1,403,058	$1,520,715
Less: Depreciation	25,289	35,462
Bank interest	498,239	478,248
Funded debt int.	241,183	354,427
Income tax	301,008	294,749
Net profit	337,339	387,819
Less: Pref. divds.	61,822	30,000
Cl. A divds.	73,893	95,282
Cl. B divds.	45,000	60,000
Surplus for year	156,624	202,537

†After deducting reserve for losses and contingencies.

Times Funded Debt Interest Earned:‡		
Before deprec.	3.75	2.94
After deprec.	3.65	2.84
‡After deducting bank interest.		
Earnings per Share and Dividend Record:		
Preferred	$4.72	$5.17
Paid, 5%	▲0.75	1.00
Paid, 6%‡	0.90	0.10
Class A†	1.68	2.25
Paid	0.45	0.60
Class B†	2.10	2.78
Paid	0.45	0.60
Cl. A & B†	1.04	1.38

*Based on number of shs. as calculated from divds. paid.
†Before (↓after) participation.
‡50,000 pf. shs. issued Oct. 1, 1956.

Shares o/s:	June 30 1957	Oct. 31 1956
5% Cum. red. pf.	▲24,250	25,000
6% Cum. red., p.v. $30	47,200	50,000
Class A	172,816	159,353
Class B	100,000	100,000

▲New 5% series cum. red. preferred issued on a share-for-share exchange basis for old 5% cum. red preferred.

CONDENSED BALANCE SHEET

As at:	June 30 1957	Oct. 31 1956
Cash	$444,991	$456,427
Notes rec.	29,273,387	25,916,997
Accts., etc., rec.	169,850	64,649
Deposits		30
Total curr. assets	29,888,228	26,437,303
Disc. & ex. re stk.	316,314	301,484
Prepaid exps.	9,300	475
Lease improve.	36,409	38,205
Fixed assets*	138,811	116,780
Total assets	30,389,062	26,894,447
Bank & call loans	14,076,658	11,372,000
Accts., etc., pay.	1,705,941	1,532,851
Inc. tax pay.	225,652	146,336
S.f. instal. due		20,500
Total curr. liabs.	16,008,251	13,073,687
Unearned income	2,763,754	2,744,951
Reserves	440,471	419,080
Funded debt	7,126,000	6,852,500
Capital stock	3,314,258	3,249,880
Earned surplus	726,328	554,349
*After depr. of	109,745	98,698
Working capital	13,879,977	13,362,816

Steel

Vanadium-Alloys Steel Canada Ltd., London, Ont., net profit for the 12 months ended June 30, 1957 was $32,577. This compares with a net loss of $395,717 the year before.

Sales during the company's fiscal year were 75% higher than a year earlier. Company produces quality high speed, tool, stainless and specialty alloy metals.

During past year company began producing high temperature alloy steel. Output of finished steel in 1956-57 was almost double production a year earlier.

In 1956-57 company added to main plant to provide housing for three departments and part of a fourth. Two new bar furnaces for heat treating together with water and oil quenching facilities were completed and will be used for treating commercial alloy and aircraft steel.

Among other items of equipment acquired during 1956-57 were new steel sawing and cutting equipment, 10-ton mobile crane. Company's Toronto warehouse was enlarged.

CONS. INCOME ACCOUNT

	12 mos. ended June 30 1957	12 mos. ended June 30 1956
Period:		
Net oper. profit	$231,657	†$204,836
Less: Deprec.	127,827	122,126
Bond interest	45,000	45,000
Other interest	26,253	23,755
Net profit and surplus	32,577	†395,717

†Loss or deficit.

Earnings per Share and Dividend Record:		
Earned:	$0.08	d$0.92
None paid.		
Shares o/s June 30:		
Common n.p.v.	430,200	430,200

CONDENSED CONS. BALANCE SHEET

As at:	June 30 1957	June 30 1956
Cash	$37,874	$4,917
Accts. rec., less res.*	346,317	267,560
Inventories	1,319,352	1,117,329
Total curr. assets	1,703,543	1,389,806
Prepaid exps.	28,529	16,158
Fixed assets†	2,151,307	2,176,369
Total assets	3,883,379	3,582,333
Bank loan	410,000	475,000
Accts., etc., pay.	158,012	151,057
Due parent co.	788,040	461,726
Total curr. liab.	1,356,932	1,087,783
Funded debt	1,000,000	1,000,000
Capital stock	2,376,300	2,376,300
Less: Deficit	848,973	881,550
*After res. of	4,000	4,000
†After depr. of	435,392	308,170
▲Incl. in curr. assets in co.'s report.		
Working capital	347,491	▲92,923

BOOKS FOR BUSINESSMEN

ACCOUNTING FOR FOREST PRODUCT INDUSTRIES by the Canadian Institute of Chartered Accountants, Toronto; 61 pp.; $1.75.

This is a collection of six articles by chartered accountants, each dealing with accounting in a special field of Canada's forest industries. It is introduced by a treatise on the British Columbia logging industry, and followed by discussions of the British Columbia lumber industry, Ontario logging and lumbering, the Maritime lumber industry, accounting for the pulp and paper industry, and accounting for the plywood industry.

It is a significant contribution to the growth of specialized accounting literature in Canada.

• • •

THE PATH OF DESTINY by Thomas H. Raddall; Doubleday, Toronto; 468 pp.; $6.

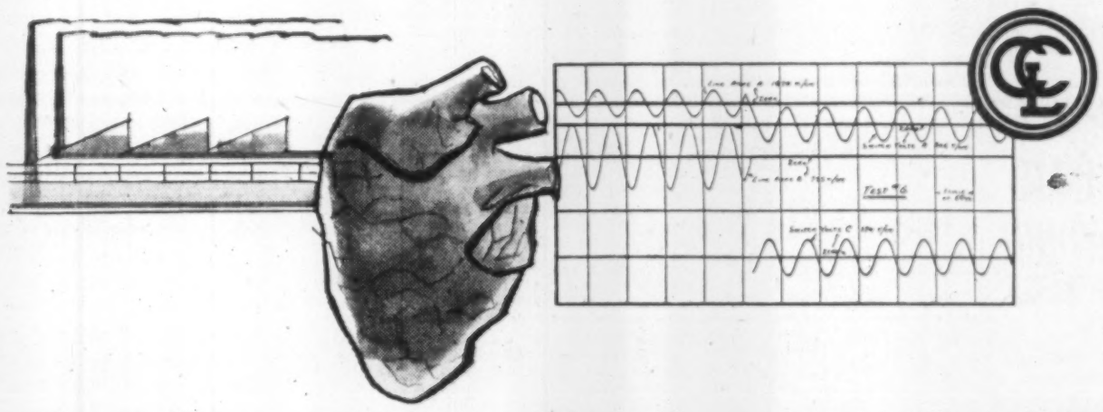
In 1763, the victorious British faced a momentous decision — whether to subjugate the inhabitants of New France, or to assimilate them into a new and vaster colony loyal to the Crown.

Fortunately for Canada's future, the first British governor at Quebec was Wolfe's brigadier, James Murray. He resisted the small but noisy band of about 500 Anglo-American "Fanaticks" who had come up from Albany to Montreal to reap the spoils — commercial and political — of conquest.

Murray and his successor, Guy Carleton, helped to formulate the British policy of assimilation which led Canada's two racial groups along the path to a national consciousness. The path remained far from smooth, but the British policies proved to be as successful as they were enlightened. The tests came in 1776 and 1812, when the Canadiens remained steadfast in their loyalty.

The Path of Destiny is a highly readable history of Canada from the British conquest in 1763 to the coming of Home Rule in 1850. Author is Thomas H. Raddall, the Nova Scotian whose novels have won him a wide international audience.

This is Volume III in the Canadian History Series, edited by Thomas B. Costain. It is a worthy successor to the first two volumes, Costain's own The White and The Gold, and Joseph Lister Rutledge's Century of Conflict.



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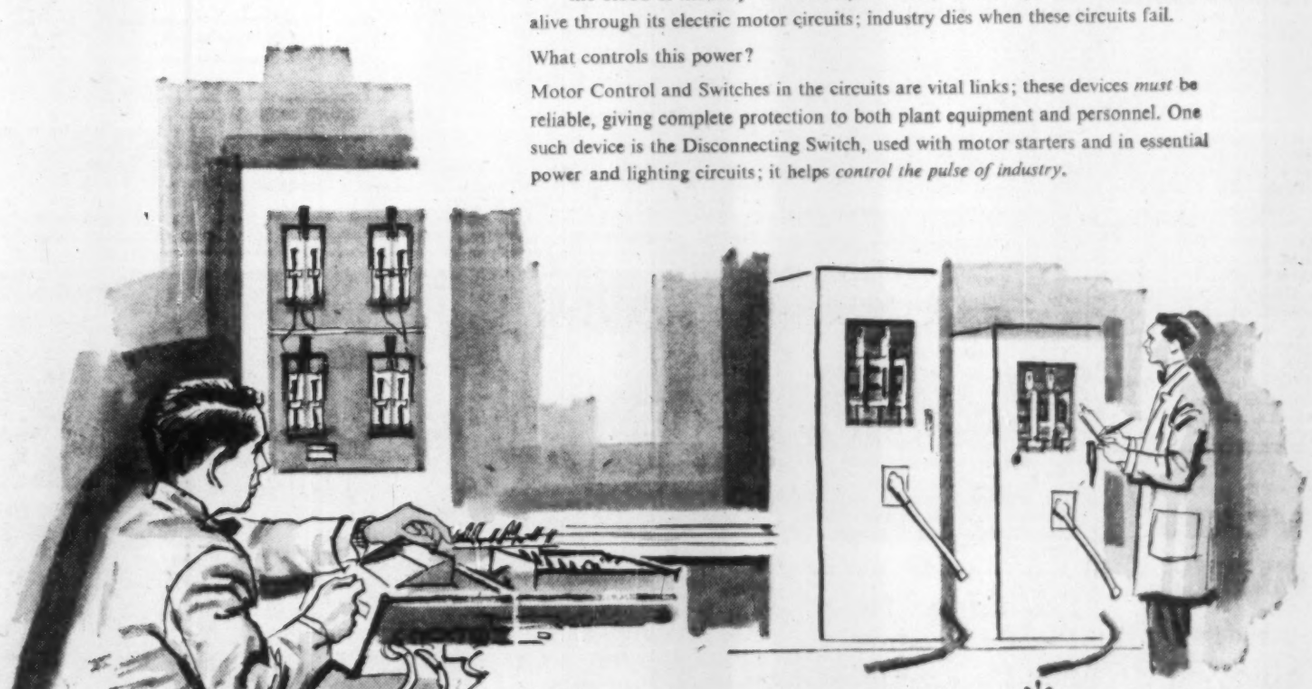

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The Bank of Nova Scotia

F. WILLIAM NICKS

General Manager of The Bank of Nova Scotia whose election as a vice-president is announced by H. L. Enman, Chairman of the Board.

TOWNSHIP OF LANGELIER, Que., has sold $120,000 5½% 20-year serial debentures to a syndicate comprising **Florido Matteau & Fils** and **Gaston Laurent Inc.** at 87.50 indicating net cost of 7.10%. The 1977 maturity includes a balance of $1,000 to be renewed for a further term of 10 years. Proceeds are for construction of water works and a sewer system, a municipal hall and organization of a fire protection system. At Dec. 31, 1956, net funded debt was $7,000 and population 310.

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Does This Spell Housing Spurt?

	Housing Contract Awards % Change From Year Ago	Housing Unit Starts % Change From Year Ago
1956:		
Jan.	+145	+3.1
Feb.	— 2.4	+11.8
Mar.	+34.0	+8.7
Apr.	+1.8	+5.1
May	— 5.8	— 2.6
June	— 11.9	+1.9
July	— 4.1	...
Aug.	— 38.7	— 13.7
Sept.	— 2.0	— 13.4
Oct.	— 25.6	— 21.2
Nov.	— 41.3	— 26.3
Dec.	— 50.7	— 34.7
1957:		
Jan.	— 77.8	— 53.8
Feb.	— 51.8	— 54.7
Mar.	— 61.5	— 22.4
Apr.	— 13.4	— 16.4
May	— 24.4	— 14.6
June	— 30.3	— 8.4
July	— 21.2	— ? ?
Aug.	+7.4	+ ? ?

First storm signals for new housing appeared here when value of contract awards began to slide.

Four months later, the decline showed up in housing starts.

For the first time in 15 months, housing contract awards last month topped corresponding year-ago level.

It could mean a winter spurt in new home starts this year.

New Funds Stem Housing Fall August Brings First Upturn

Here's news which one of Canada's biggest industries and a wide range of other associated industries have been waiting to hear for more than a year.

The 12-month-old decline in new housing unit starts looks as if it has been halted. And indications suggest that the new trend, with another $150 million stake to keep it rolling, is going to spread out over the next two months.

Here are the highlights of the new outlook for housing:

- Last month, for the first time in a year, housing starts are estimated to be ahead of the same month in 1956. It will still be a long climb back to the boom-year levels of 1955. For the eight-month period this year, starts are still about 14% behind 1956 levels. But it's the first plus sign to be chalked up since the levelling-off began.
- Canada's biggest population centres have taken the lead in stemming the tide. Preliminary estimates for August by **Central Mortgage & Housing** show both Montreal and Toronto substantially ahead as compared with August, 1956. Other centres are expected to join the revival this month and in October as new funds for mortgages recently made available percolate through the country.
- Contract awards for residential building in August, issued by Hugh C. MacLean Building Reports, show a 7.4% increase over the same month in 1956. It's the first turn-up in the residential contract field for the past 15 months.

As new mortgage funds became available in recent months to ease the tight money situation, the gap between housing units started this year and last year has been narrowing. In July, that trend was continued when preliminary figures from Dominion Bureau of Statistics showed over 13,000 starts for the month, some 10% behind July, 1956.

But the rocket went up last month. Unofficial estimates place total starts for August at around 14,500 as compared to 13,999 in August, 1956. This is believed due to the flow of funds provided by the $150 million released for mortgages through the banks as from about four months ago. Extra funds which became available, swelled that total to some $180 million, it's reported.

But there's still another $150 million to go into the pool. Arrangements for the handling of this additional sum are now being hammered out in detail between Central Mortgage & Housing Corp. and approved lenders and it may be some weeks before that also starts flowing to swell the new homes tide.

The new impetus won't hike the total of new home starts for 1957 above the 1956 level of 127,311. In authoritative circles, estimates of total starts this year, taking availability of new funds into account, are swinging between 90,000 and 110,000. But that's a lot better than the 1957 totals being forecast only two months ago.

Meanwhile, first authoritative indications of the uptrend in housing come from CMHC preliminary figures for centres with populations of 5,000 and over. Last month, it's estimated that total starts during the month in these areas were only off 300 from the same month a year ago—8,743 as against 9,043.

But the significant factor in the returns was the substantial increase shown by both Montreal and Toronto for the first time in many months.

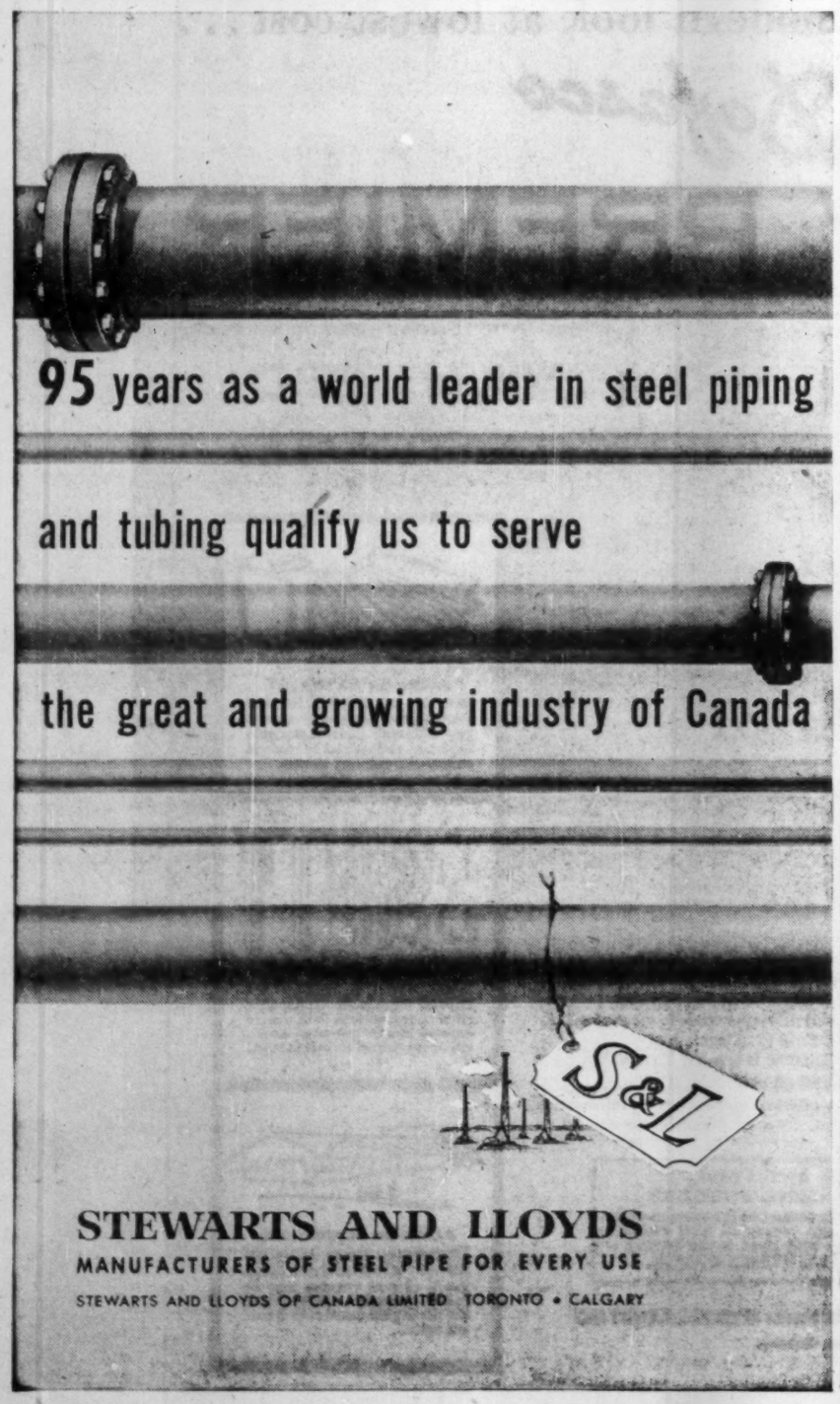
Both cities over the eight months of this year are still well behind.

But in August, each boosted its total over 35% ahead of the figure for the same month a year ago.

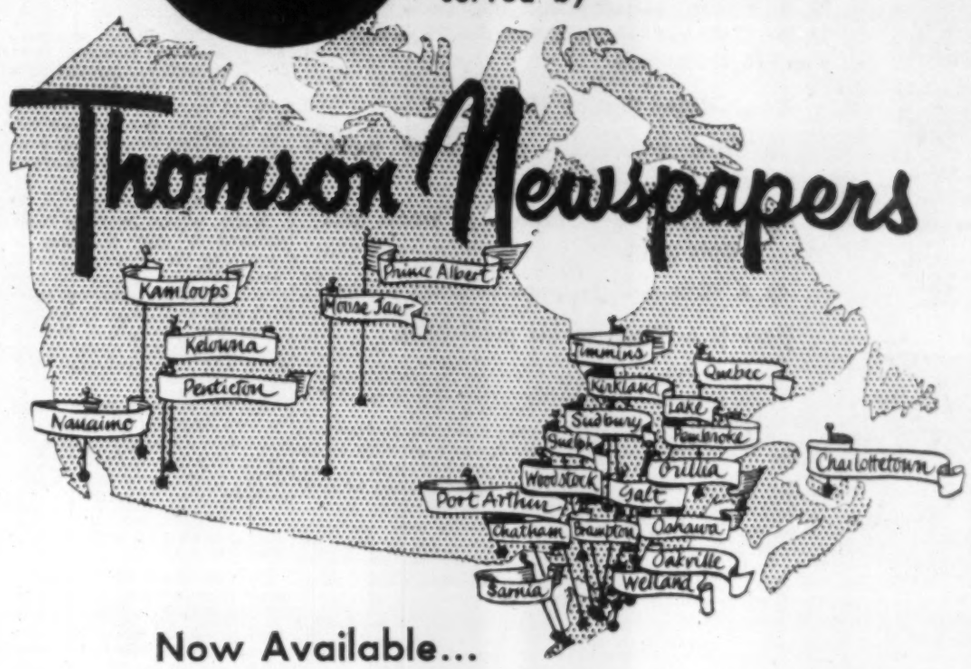
This is believed due to the fact that the impact of new mortgage money is bound to be felt in these two centres first. They house the headquarters of the banks which are handling the funds and decisions can be made quickly. In other centres, it takes a little longer for word to get through.

Here are the preliminary figures on new housing unit starts in seven metropolitan centres in August:

Halifax	64	136
Montreal	2,226	1,549
Toronto	2,072	1,522
Winnipeg	162	446
Edmonton	428	643
Calgary	406	86
Vancouver	708	734



23 profiles of Canadian markets served by



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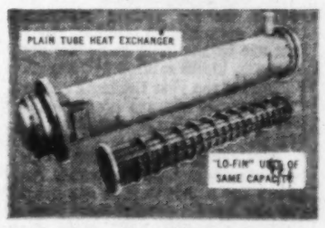

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Vast Capital Outlay Needed For Canada's Growth Tempo

Canada's gross national product in 1970 will be 180% of the 1955 figure, in terms of real purchasing power.

President of the Canadian Pacific Railway, N. R. Crump, recently told members of the Traffic Club of New York that the 1955 figure was $26,916 million.

He predicted that by 1970:

- **There would be spectacular gains in mineral production.**
- **A 50% rise in exports of wood and paper products.**
- **A 90% gain in manufacturing output.**

Here is a digest of his predictions.

By N. R. CRUMP

There is one important difference, which distinguishes Canada's present surge of growth from those which have gone before.

Minerals, oil and natural gas are setting today's growth tempo, calling for vast capital outlay far exceeding the investment requirements of earlier periods of expansion when wheat, forest products and hydro-electric power were the pace-setters.

Moreover, the exploitation of mineral resources is stimulating the growth of heavy industry, construction and manufacturing to a far greater extent than was the case with earlier development of our primary industries.

Rate of Canadian economic growth will depend not only on access to resources but on size of the labor force and expansion of markets.

A Canadian population of 21 million in 1970, is forecast, with 7 million at work; and buoyant world markets in the next decade and a half for the basic materials of modern industry that Canada can supply.

In the past decade the world has been demonstrating its huge appetite for minerals.

Other countries, it is true, have mineral resources which compare favorably with those of Canada, but few other resource-rich countries have the inestimable assets of a skilled and educated labor force, a stable political and legal environment, a well-developed transportation system and a mature capital market.

A more auspicious environment for the dynamic interplay of the wealth-generating forces of supply and demand would be hard to imagine.

None but the most confirmed pessimist could fail to grasp the implications, and to seek to seize the opportunities of such a situation.

Let us consider, for a moment, in the light of what our forecasters say, where those opportunities lie, and what their probable magnitude may be.

Buoyant Markets

Canada's exporters, especially of raw materials and semi-processed goods, should experience buoyant world markets in the next decade and a half.

There is every reason to suppose that the general level of world trade will continue to rise.

Canada, for reasons to which I have already alluded, is in a particularly good position to supply the basic materials of modern industry.

Exports of wood and paper products may be expected to rise by about 50%. Nickel-copper production should show an increase of slightly more than 100%.

Asbestos production may soar 89% above mid-1950 levels. Aluminum output is expected to be triple what it was in 1955.

A 168% increase is forecast for nonferrous mining and smelting by 1970.

Large quantities of high-grade iron ore and untold deposits of lower-grade ore suggest an eight-fold increase in production between the mid-nineteen-fifties and 1970.

The promise of these production forecasts is alone enough to stir the imagination.

Add to them the fact that as Western Canada's vast petroleum and natural gas resources come into production, meeting the country's need for additional supplies of industrial energy as well as for export demand, and few can doubt that the glittering horizons of tomorrow's wealth are no mirage.

Growth Pace

While export markets seem destined to spur the pace of growth in the primary sector of Canada's economy over the next decade or so, this does not mean that Canadians must be content solely with the role of meeting the raw material needs of the U. S. and other industrially mature nations.

Rather, there is every reason to look forward to marked expansion in manufacturing and our forecasters foresee for this sector of the Canadian economy a 90% increase in output by 1970.

Our greatest asset, just as it is your greatest asset in the U. S., is people.

Without people adventurous in outlook, conservative in their attitudes, with an abiding faith in freedom-based enterprise, our magnificent and untold resources might still have been uncovered, but never would they have formed part of the Canadian heritage.

Let me at once disabuse you of the notion that Canadians harbor any sentiments of narrow nationalism.

Far from it. We cherish our ties of crown and commonwealth. We acknowledge our singular and good fortune in having as our neighbor the U. S., sharing as it does our traditions of democracy and freedom.

And despite the shadows of concern about U. S. giantism which flicker fitfully at times across the face of the Canadian body politic, we are confident at heart that our common democratic traditions and our common belief in economic freedom will resolve the pinpricks which sometimes ruffle the quiet surface of Canadian-U. S. relations.

The Economics

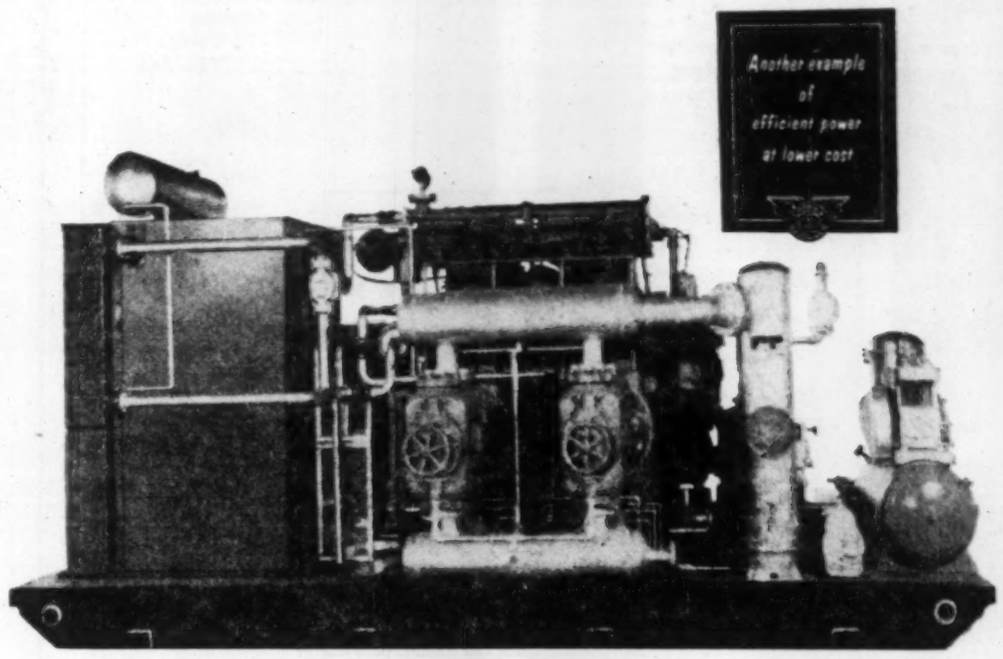
In the economic sense, inter-dependence, as between Canada and the U. S. manifests itself in a variety of ways.

One of these is trade. For just as Canadians look to the U. S. for markets for the products of their great resource industries, U. S., in the sober light of the Paley report, looks ever-increasingly to Canada for the sinews that make possible the miracle of modern U. S. production.

While Canada today is meeting her capital requirements mainly out of the domestic savings, the confidence of U. S. investors in Canada's future serves to accelerate the tempo of growth and to have a stabilizing influence on our disquietingly large trade deficit.

Liberal tariff policies and a liberal attitude toward the participation of U. S., British and foreign investors in Canadian growth, have played a dominant role in our country's recent expansion and prosperity.

I am confident that they will continue to play an equally conspicuous part in Canadian economic life in the years that lie ahead.



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World Bank Lent $388 Million To 15 Nations in Fiscal Year

International Bank for Reconstruction and Development net income for fiscal year ending June 30, 1957 amounted to U. S. $36 million, up from the year before's $29.2 million. This sum was credited to a supplemental reserve against losses on loans and guarantees bringing it to $195 million ($150.7 million).

In addition, the World Bank received $17 million from a 1% special commission received on all loans, bringing this reserve to $94 million. Total reserves reached $289 million.

Exclusive of loan commissions, gross income for the year came to $74 million ($63.9 million) of which $63 million came from principal repayment on loans and $11 million from investments. Expenses were $38 million as against $34.7 million in the previous fiscal year.

During its year of operations, the bank made 20 loans totaling the equivalent of $388 million in 15 countries: Cash disbursements were $332 million, 17% higher than in the previous year. This brought total disbursements since the bank's development lending began to $2,296 million.

Repaid in Advance

Borrowers met all payments of principal and interest during the year. In addition, some borrowers repaid in advance of maturity dates. During the year repayments of all sorts totaled $63 million, $15 million higher than a year before.

The bank, by private placement, sold $57 million of loans without guarantee. This is 21% smaller than a year before. Cumulative total received by the bank from such sales to private banks and other institutional investors since the start of operations is $333 million.

During its fiscal year, the bank entered into agreements to borrow $322 million. There were three new issues of U. S. dollar bonds amounting to $275 million; a loan of Sw. fr. 200 million ($47 million). Member countries also placed an additional $134 million of their capital subscriptions at the disposal of the bank for loans.

Bonds Outstanding

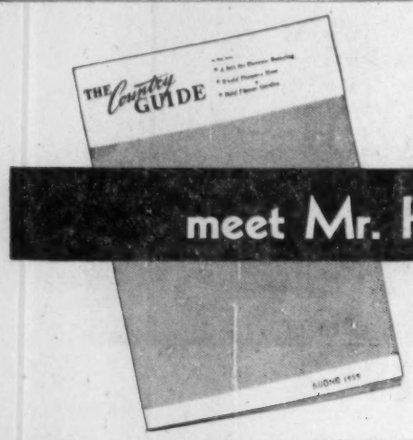
At the end of the fiscal year, total bonds outstanding came to $1,034 million ($850.2 million). Total subscription capital freed for use by the bank in its lending came to $1,027 million at June 30.

During the year the bank raised the interest charges on its loans from 5% to 5½% and later to 5⅝%.

Electric power continued to be the main purpose for which the bank has lent with over one-third of the bank's development lending in the past year being directed to such projects.

Important new source for funds for lending is subscription capital released by members to the bank, say bank officials. In the first years of operation, Canada and the U. S. made the whole of their subscriptions available. In recent years European members and an "unprecedented number of countries outside Europe and North America have also made funds available."

Argentina and Viet-Nam joined the bank during the year, bringing total membership to 60 and subscribed capital to $9,268.4 million.



meet Mr. Hurd

LORNE W. J. HURD

Lorne W. J. Hurd, whose appointment as Editor of the Country Guide became effective September 1, comes well equipped for his new responsibility. Lorne grew up on a farm and is a University graduate in both Arts and Agriculture. Over the years, he has held executive posts on the National Dairy Council and the Agricultural Institute of Canada and is well known to professional agricultural people and farm leaders across the country.

Under this new and able leadership The GUIDE continues to serve farm people everywhere in Canada.

BUSINESS ADVICE
Farming today requires a large capital investment and a maximum of skill and knowledge. Factual, terse stories interpret the results of scientific and economic research, show readers how to farm more efficiently and attain higher productivity by adopting new techniques.

COMPETENT COVERAGE
Six full-time editors travel widely to assure Country Guide readers a balanced and expert coverage of all the interesting and important developments affecting farm people across Canada. Two of these editors have made Oakville, Ontario and Calgary, Alberta, their home bases for more efficient coverage of these fields.

FAMILY & HOME COMMENT
Farming is also a way of life. Regular features devoted to cooking and community activities, to home furnishing and family living, make The Guide vital reading for both adults and young people.

EXPERT CRAFTSMANSHIP
High Standards of journalism—generous illustration—uncluttered makeup—good paper—free use of color—and variety of material combine to make The Country Guide readable and attractive. With a style all its own, The Country Guide now fills a special niche in farm homes in all ten provinces.

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SAVES ON MATERIALS
Basic cost runs 10%-15% less than competing metals, and because of NEW PREMIER's inherent strength, important savings can be made in structural framework as well.

SAVES ON LABOUR
Whether applied in pre-formed sections or corrugated sheets, NEW PREMIER goes up fast. Buildings are enclosed in *days* instead of weeks, and at substantial savings in costs!

SAVES ON ALTERATIONS
Expansion, as required, is faster and less costly with the *all-steel* building. Panels of NEW PREMIER may be quickly dismantled, additions made and the original panels re-used time and again.

For the modern builder, NEW PREMIER offers flexibility of design, outstanding economies and ease of construction. When pre-formed into low-cost panels, or erected in corrugated sheet form, NEW PREMIER assembles quickly and readily blends with other materials to form pleasing, contemporary lines. The normal procedure is to utilize lighter framing and foundation wherever NEW PREMIER is applied. Your *steel distributor* or fabricator has all the answers on NEW PREMIER . . . advantages, price, gauges, availability . . . contact him for further information, or write to the manufacturer.

NEW PREMIER is made by the new CONTINUOUS GALVANIZING PROCESS
Zinc adheres to steel so tightly in the continuous galvanizing process at Dofasco that the protective zinc coating on NEW PREMIER actually s-t-r-e-t-c-h-e-s with the base metal during forming or fabrication. Structures last longer with far less maintenance.

DOMINION FOUNDRIES AND STEEL, LIMITED
Hamilton, Canada

Int'l Finance Backs Mexican Aircraft Shop

International Finance Corp. has invested U.S. $520,000 in **Bristol de Mexico S.A.** for an aircraft engine overhaul and repair shop. Majority stockholder in Bristol de Mexico is **Bristol Aeroplane Co. of Canada,** a subsidiary of **Bristol Aeroplane Co. of England.**

IFC, an affiliate of the **World Bank,** came into existence a year ago to encourage the growth of productive enterprise by investing jointly with private investors in countries where sufficient private capital is not available at reasonable terms (FP, Dec. 22, 1956).

Corporation's investment, together with an investment equivalent to $912,000 by shareholders of Bristol de Mexico will finance company's already-built repair shop adjoining the Mexico City airport. With a capacity for overhauling some 480 engines—DC-3, DC-4, DC-6, Convair — plant's operations are now getting under way.

New Highs and Lows

During the week ended September 13, five new highs and 77 new lows were recorded among the general stocks on Canadian stock exchanges. In the mining group there were four new highs and 112 new lows. In western oils there were no new highs and 36 new lows.

GENERAL

New Highs — 1957

Canada Bread	Wpg. Win. Club
Catelli Food A	Mexican Lt. pfd
Fisher, B. A.	

New Lows — 1957

Abitca Lum.	Inter. Nickel
Abitibi	Int. Paper
Acadia At. 5%pf	Int. Util.
Aluminium	Interp. Bld. Cr.
Analogue	Invest. Synd.
Ang. Cdn. Pulp	Kelvinator
Anglo-Nfld.	LaFarge A
Atlas Steels	MacLaren Pr.
Bowater Pap.	MacMil & Blo. B
Bowat. N.A. 5¼%pf	Maxwell
B.C. Elec. 5%pf	Midwest warr.
Brown Co.	Mitchell Robt. A
Burns & Co.	Do B
Calgary Pwr.	Mont. Trust
Can. Iron	Nat. Hosiery B
C. Packers A	Noranda
C. Perm. Mtge.	N. Star Oil A
C. Br. Al. B	Ogilvie Flour
C. Collieries	Pembina Pipe
C. Fairb.	Powell River
C. Foods Pfd	Pwr. Corp com rts
C. Int. Power	Do 2nd pf.
C. Marconi	Do rts.
C. Vickers	President Elec.
C. Wallpaper B	Price Bros.
Crown Trust	Roe, A. V.
Crown Zeller	Salada-Shir. H.
Do (Can.)	Do A pref.
Dom. Fdry.	Do 5½% pf. B
Donnell & Mudge	Shawinigan pf.
Ford Motors (U.S.)	Do A.
Fraser Co.	Simpson
Gatineau 5%	S.K.D. Mfg.

Government Bonds

Sept. 17, 1957.

(Supplied by Investment Dealers' Assoc. of Canada)

%	Due	Bid	Ask
Govt. of Can. Bonds:			
3	Jan. 1959	97¼	97½
3	June 1960	94½	93¼
3	Feb. 1962	92½	92¾
3	Oct. 1963	90	90¼
3	Sept. 1966	87	87¼
3	Perpetual	†76	78
2½	June 1968	83	84
3½	Jan. 1975/78	92½	93¼
3½	June 1974/76	85	86
Cdn. Nat. Railways:			
3	Jan. 1950	97	97½
2½	Jan. 1967	82½	84
3	Jan. 1966	86½	87½
2½	Sept. 1969	80½	82½
Grand Trunk Pacific Rlwy.:			
3	Jan. 1962	•92	94
4	Jan. 1962	•95	96½
Int. Bank of Reconstruct. & Development			
3½	Apr. 1965	86	89
3½	June 1969	81	84
C'wealth of Australia:			
4	Nov. 1970	87½	89½

%	Due	Bid	Ask
Prov. Govt. Bonds			
Alberta:			
2¾	Mar. 1970	•82½	84½
British Columbia:			
4½	Jan. 1969	•95	97
3	Dec. 1960	93	94½
3	June 1964	86½	88
5	Sept. 1959	•99½	100½
B. C. Power Comm.:			
3	Oct. 1967	83	84½
Manitoba:			
4	Dec. 1957	•99	100
5	Dec. 1959	•99	100
5½	July 1958	99½	100½
3	Oct. 1965	85	86
Nova Scotia:			
4½	Nov. 1960	•96	98
5	Mar. 1960	•98	100
2½	June 1962/65	86	88
3	June 1956/58	97½	98½
2½	June 1965/68	80	82
New Brunswick:			
4½	Apr. 1961	•97	99
2½	June 1966	80	82
3½	Sept. 1965	86	88
5	Mar. 1970/75	95	97

%	Due	Bid	Ask
Ontario:			
2½	Nov. 1965/69	79	81
4	June 1962	•94½	96½
4½	Jan. 1962	•96½	98½
2½	July 1967/76	72	74½
3	Nov. 1963/65	85	87
5	May 1959	•99	100
4	June 1969/72	87½	89½
Ont. Hydro Comm.:			
2½	Oct. 1965/68	80	82
3	Dec. 1963/65	84	86
3	Nov. 1967/69	80½	82½
3½	May 1974/79	79	82
5	Apr. 1974/77	97½	98½
Prince Edward Island:			
3	Oct. 1965	84	86
Quebec:			
4½	Aug. 1958	98½	99½
4½	Jan. 1963	96½	98
3	Sept. 1962/64	87	89
Quebec Hydro Commission:			
3	Feb. 1969/73	78	80
3	Dec. 1958/60	92½	94
3¼	May 1971/74	80	82
4½	Oct. 1973/76	90	92
5	Aug. 1958	99	100
4½	Mar. 1960	•97	99
3	Mar. 1963	88½	90
3½	Nov. 1960/62	90	92
3½	Oct. 1962/65	90	92
5	Dec. 1959	•99	100
Newfoundland:			
4½	July 1964	92½	94½

•Payable Can. N.Y. or £ ‡Payable Can. or N.Y. †Callable on or after Sept. 15, 1956.

Volume of Stock Sales

	Montreal	Toronto	Calgary	Vancouver	New York
Sept. 16	419,200	2,284,000	81,205	69,363	2,050,000
Sept. 13	512,900	3,242,000	102,245	118,241	2,220,000
Sept. 12	371,100	2,478,000	142,278	103,271	2,760,000
Sept. 11	550,800	2,302,000	82,585	71,554	2,920,000
Sept. 10	399,000	2,223,000	98,095	56,320	2,670,000

Advances and Declines

Week Ended	Toronto Ups	Downs	No Change	Montreal Ups	Downs	No Change
July 26	207	473	150	76	179	135
Aug. 2	243	423	164	94	164	119
Aug. 9	218	450	139	67	220	111
Aug. 16	113	654	86	29	266	83
Aug. 23	275	366	167	106	144	135
Aug. 30	332	344	138	80	167	119
Sept. 6	215	377	168	109	124	116
Sept. 13	245	419	144	58	228	98

Crown-Zellerbach Markets New Line

Crown Zellerbach Canada Ltd. is placing on the market a new line of consumer paper products.

These will appear in B.C. retail stores this month. Advertising campaign starts early next month.

Included will be: toilet tissues, napkins, household towels and a wide range of household bags. Products will be marketed under the trade name "Zee."

To be manufactured in company's Richmond converting plant, the line is part of company's program to diversify products in the interests of creating additional earning stability, say company officials.

Gen. St. Wares	Slater, N.
Gt. Lakes Pap.	Steel of Can.
Gt. Nor. Gas $2.86p	Switson
Imperial Oil	Trans. Mt. Oil
Ind. Accept. warr.	United Can. Shs.
Inglis, John	

MINING

New Highs — 1957

Bellechasse	Kerr Lake
Cochenour	Prem. Iron O.

New Lows — 1957

Alta.	Indian L.
Ameranium	Inspiration
Anacon.	Int. Nickel
Ansil	Irish Cop.
Aumacho	Jeanette
Band Ore	Joliet Que.
Bandowan	Kirk. H. Bay
Bankeno	Labrador
Beattie-Duq.	L. Dufault
Beaucage	Lexindin
Bell-Chib	Little L.L.
Bethlehem	Lyndhurst
Bidcop	Maritimes
Boymar	Merrill Is.
Buffadison	Mid.-Chib.
Buff. Red Lake	Mining Corp.
Calumet	MontGary
Camp. Chib.	Nello Min.
Cdn. Dyno	N. Dick'n.
Cdn. N. Inca	Newnorth
Carnegie	N. Taku.
Chesterville	Noranda
Chib. Jac	Norpax
Chib. Min.	Norsym'e
Coast Copp.	N. Rankin
Coldstream	Obalski
Cominga	Opemiska
Conkey	Orenda
Cons. C. Cad.	Osisko
C. Hall'well	P.C.E. Expl.
C. Monpas	Paramaque
C. Que-Yell.	Peerless
C. Regcourt	Placer
C. Sannorm	Powell R.
C. Tung.	Premium Iron
Conwest	Purdex
Copper Corp.	Que. Chib.
Copper Rand	Que. Smelters
Coulee	Rainville
East Metals	Ryanor
El-Pen-Rey	Silver M.
El-Sol	Silver Stand.
Fab. Met.	Stad'n '44
Falconbridge	Steeloy
Federal	Steep Rock
Gaitwin	Tache Lake
Gaspe Cop.	Trojan
Geco	Van'da '48
Genex	Vico
Goldale	Virginia
Granby	Waite Am.
Granduc	Werner Lk.
Gulf Lead	Willroy
Gunnar Gold	Winchester
Headway	Windfall
Hudson Bay	Yukeno

OILS

New Lows — 1957

Acme	Gt. Plains
Amurex	Liberal
Bailey-Sel. A	Midcon.
Do $6 pf.	N. Chamb'n
Blue Crown	N. Richfield
Bonnyville	North Cdn.
Calalta	Do 5½% pf.
C. Oil Lands	Do warr.
Do warr.	Nuco
Cdn. Dev.	Okalta
Cent. Explor.	Peruvian
Cons. Allen	Phillips
Cons. East C.	Ponder
Cons. Emjay	Quonto
C. Mic Mac	Reef Explor.
Cons. Peak	Sapphire
Cons. W. Pet.	Triad
Dubar	Vandoo

Unlisted Mines, Oils

(By Broker-Dealers' Assoc. of Ont.)

Approximate quotations, 3.30 p.m., Sept. 16, subject to confirmation and change. An asterisk (*) indicates an increase in price; a dagger (†) a decrease in price.

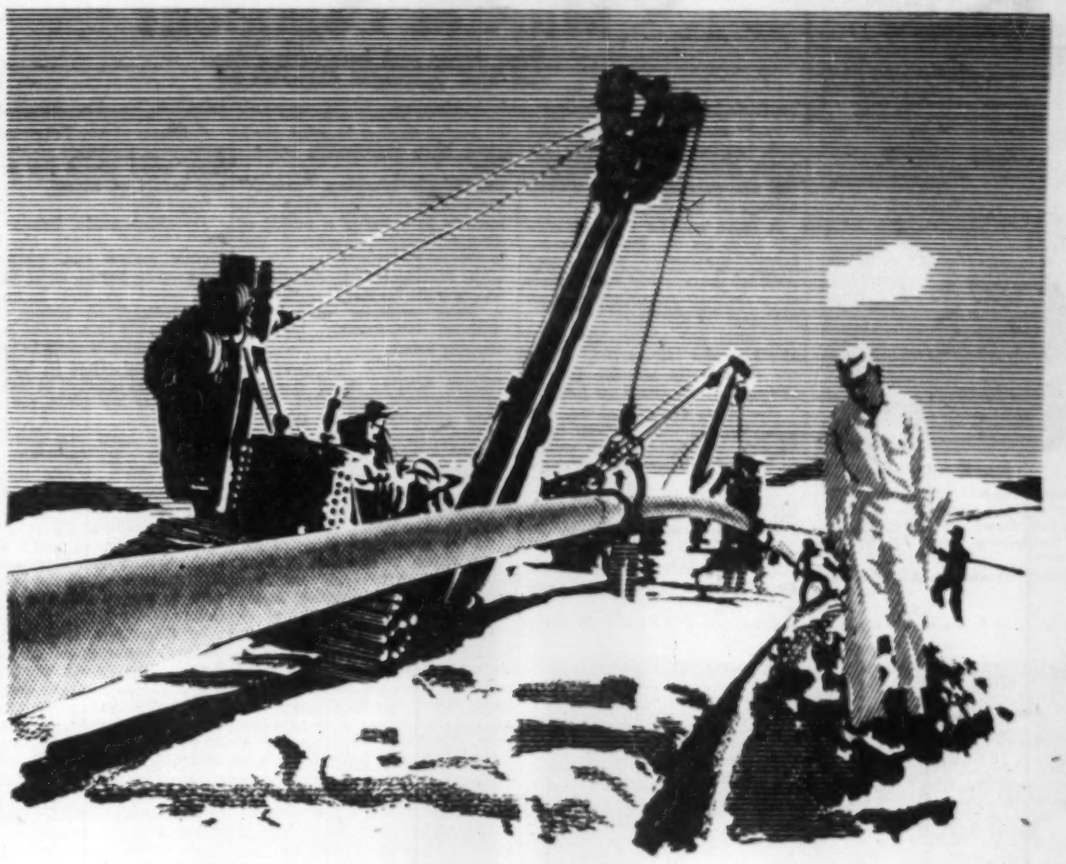
	Bid	Ask		Bid	Ask
Abeta	6	9	Mal RL	*9	11
Abbican	*12	14	Mar Bd	9	11
Advance	15	7	Mat Can	7	8
Alexander	3	4	Maree	1	2
Ama Kir	3½	4½	Mate Yel	5	7
Anahac	5	7	McCuaig	11	3
Anamaq	2	3	McFinly	*7	9
Anuwon	6	8	Miles RL	1½	3
Arctic	2½	3½	Millkirk	5	8
A. Chib	—	10	Mindust	75	100
Barima	17	20	Mizado	6	10
Beacon	6	7	Mt. Keno	2	4
Belfast	3	5	Monteo	1	3
B Jck P	3	5	Murk F	20	30
B Gross	3	5	Murmac	2	3
B McDad	6	8	Muriy M	*29	32
Braceq	14	17	Nat New	6	8
Brainne	7	10	Nasco	5	7
Bright	1	2	New Met	8	10
Bruce P	*9	12	Nw Aug	5	7
Brunette	4	5	N Inaco	5	7
Camlaren	3	5	N Redwd	3½	5
Camp I	8	10	New Wal	2	4
Camray	2	4	Nickel O	3½	5
Can Rd	11	13	Nickel L.	3	5
C All-M.	4	6	Nicoba	6	8
Cn Min	5	7	Nipiron	†15	18
Cnt Hill	9	12	Norcourt	2	4
Caral	—	30	Norbess	55	65
Chellew	4	6	Norford	1	3
Clinger	3	5	Normar	1	3
Clia	4	5	Ocean	200	225
Columbr	2	3	Okland	6	8
Columbia	1	2	O'Rare M	7	9
Cmstock	5	7	Orofino	5	7
Con Co.	16	18	Orotona	2	4
Conecho	5	7	Pacemkr	3½	5
C Harper	6	8	Pascalis	8	10
Crack S	6	8	Pax nw	25	35
C Vauze	6	8	Peybe	1	3
Cornell	8	9	Peach	1200	1300
Crabbe	7	9	Pelangio	1	3
Croydon	3	5	Pickering	4	6
Derlac	1	3	Picton	5	7
Desmont	1	1¼	Pine P	†850	750
Despina	2	3	Pitchvein	4	6
Destrad	2½	3½	Plum N	50	60
Dom. Ex	6	8	Quejo	4	6
Duvegn	4	6	Quest	1	3
Durham	2	3	Raglan	†50	55
East Lun	2	3	Rand M	3	5
Echo Ind	1	3	Red Brk	4	7
E Bon	16	8	Redcon	2	4
Farcroft	3	5	Redruth	1	3
Flicka	2	4	Rhyolite	1	2
Forty Fr	20	35	Richgroup	5	7
G Chib	—	20	Rio Tn	285	300
Gan Cop	5	7	Romar	13	16
Gateway	4	5	Rugged	1	2
Glenbck	5	7	Russet	3	5
Glencoma	2	3	Salmita	3	5
Glen Ec	*21	23	Sheldon	8	10
G Harker	7	10	Sladen Q	—	100
Gord Lab	2	3	St Mary	†25	30
Goldmaq	3	5	Slate By	2½	4
Gov Gold	4	6	Snow L	5	7
Grd Chb	50	—	S Dufault	7	9
Hedwrk	—	35	Sunbeam	3	3½
HG Yng	12	14	Starlight	4	6
Hornfalt	7	9	Th'crest	16	18
Hot Min	3	5	Tower	4	8
Hubt L	15	17	Tredor	†12	14
Hudn U	*25	30	U Ridge	10	12
Hucamp	7	9	Ungay C	5	7
Independ	8½	9½	Viking	5½	10
Jamaica	6	8	Wadge	3	5½
Jean Lk	†7	10	Wesley	6	7
Jerome	3	5	Westail	7	9
Kamfac	9	11	West RL	1½	3
KB Mng	5	6	W Wasa	2	4
Kenda P	1	2½	Y Dvid	16	18
Kenog	7	9	**OILS**		
Larongе	7	10	B C Oil	†300	400
Lndoma	8	9	C Delhi	†9½	9¾
Laroma	4	6	C Sup	†2750	2825
Larum	7	9	Harvest	20	23
L Expan	4	6	Lon P	42	45
Lwr Can	1½	3	N Ranch	5	7
Lun Ec	28	30	O Smoky	5	6
Lynwth	*7	10	Paige Pet	9	13
Magoma	3	5	Sbmrin	39	42
Main O	11	14	Surpass	66	72
Manecho	4	5			

Bond Tenders

12 Noon, Sept. 19, 1957, Government of Canada Treasury Bills — Payable Dec. 20, 1957, $130,000,000. Dated Sept. 20, 1957.

12 Noon, Sept. 19, 1957, Municipality of the District of West Hants, N.S. — 5¼% 1-20 year debentures, $200,000. Dated Sept. 1, 1957.

CANADA MALTING CO. between Aug. 16 and Sept. 14 purchased for cancellation 1,113 shares of 4½% cumulative redeemable preferred stock, leaving a balance of 186,354 shares outstanding.



SERVING

Oil TRANSPORT

Seventy years of experience back up MANNESMANN's reputation as a leading maker of high-quality seamless pipe to API standards for oil transport and for other uses in all industries throughout the world. This same experience is built into every pipe leaving our new automatic seamless pipe mill at Sault Ste. Marie, Ontario. Its main products are seamless casing and line pipe from 4½" to 10¾" O.D. for the ever-growing oil industry.

MANNESMANN TUBE COMPANY LTD.

SAULT STE. MARIE, ONT., CANADA

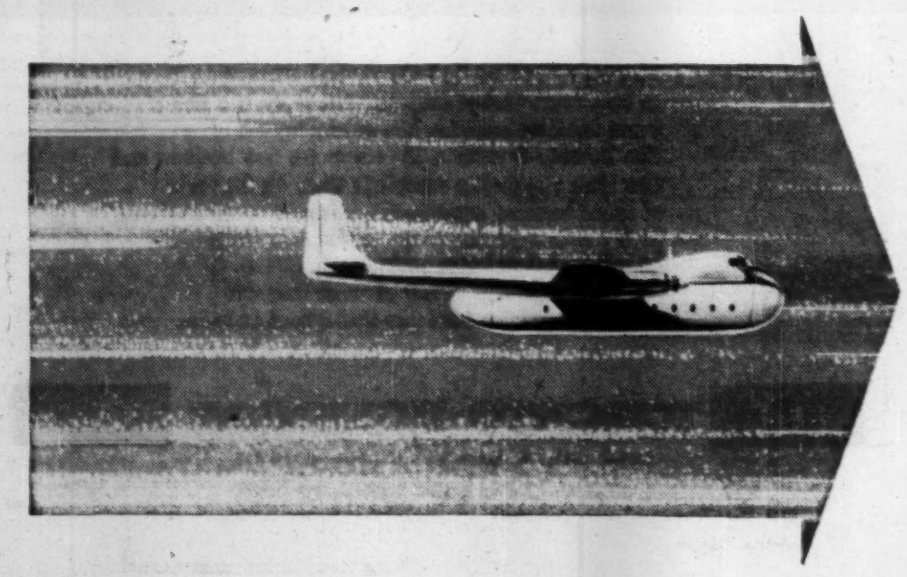
Associated Sales Offices

CANADIAN MANNEX CORPORATION LIMITED 3908-7 th Street East, Calgary, Alberta

AMERICAN MANNEX CORPORATION 233 Broadway, New York 7, N.Y., and 713 Texas National Bank Building, Houston, Texas

THE WORLD'S FIRST PRESSURISED TURBOPROP

FREIGHTERCOACH ...the AW 650



Here is a modern adaptable transport specially tailored for freight and aircoach traffic in all parts of the world. No other aircraft is so versatile as this multi-purpose transport—the world's first modern pressurised turbo-prop freightercoach. The aircraft has been designed to allow the greatest possible flexibility of operation with minimum time on the ground. The full-width fore-and-aft loading doors permit speedy terminal loading and easy cargo handling at intermediate stops. Four proved Rolls-Royce Dart engines give the AW 650 a mean cruising speed on medium range routes of 300 m.p.h. The AW 650 Freightercoach is a truly modern answer to world airfreight problems. It is robust, reliable and easy to maintain, and will achieve a substantial reduction of present airfreight costs. Alternative versions include a car ferry, a military transport and a short-stage bus. There is also a twin engined version powered by Rolls-Royce Tyne engines.

PAYLOAD——28,000 lb. CAPACITY——3,680 c. ft.

SPEED——300 m.p.h. TAKE OFF (field length)——4,050 ft.

RANGE——3,000 miles (Without Reserves)

SIR W. G. ARMSTRONG WHITWORTH AIRCRAFT LTD. / Baginton, Coventry, England

MEMBER OF THE HAWKER SIDDELEY GROUP/PIONEER . . . AND WORLD LEADER IN AVIATION

ANNOUNCEMENT

BUILDING CENTRE APPOINTMENT

SYDNEY L. CAPELL

Sydney L. Capell, recently retired President of Philco International Corporation, has been elected to the Board of Directors of The Building Centre, 12 Shuter St., Toronto.

Market Comment

What stocks and bonds are doing and what prominent observers say

Last week's two-day market rally ran out of steam early this week. Although part of the gain was surrendered, trading activity slowed on the downside.

It could well be that this 470-475 level on the Dow-Jones industrial average will prove a floor level for the next few weeks while more definite indications of business activity developed.

In steel and automobiles, two all-important barometers, orders are up slightly but the gain is disappointingly small so far.

One thing the market can certainly expect over the next three months is sizeable stock selling in U. S. for income tax purposes.

* * *

RICHARD LOCKE; Leggat, Bell, Gouinlock Ltd. (Montreal)

The present lack of conclusive movements in equity markets and the recent decline in most stock prices have emphasized several facts.

—relatively speaking, "growth" stocks are somewhat more vulnerable in price in a period of general market weakness and economic uncertainty.

—the market decline has served to bring the "growth" stocks into a more realistic perspective, without discounting earnings decades away.

—simultaneously the more defensive equities have emerged comparatively unscathed, with their intrinsic values more in evidence than has been the case for some time.

Generally speaking, investors appear to be apathetic, marking time while more definite trends assert themselves.

In the meantime, none of the news, either in business or from abroad, is particularly exciting; the Middle East situation seems almost explosive.

Orders for capital goods appear to be weakening. Capacity excesses are in evidence throughout the forest product and base metal industries. Steel orders are not at all what they were expected to be. The expected fall upturn in business activity has not yet materialized. Profit margins continue to reflect the pressure of the premium on the Canadian dollar, higher costs, more difficult pricing conditions, and the increasing costs of, and difficulty in, securing investment capital.

The economy seems to have stopped for a breather, and in many sectors demand must now realign itself with supply. The medium and longer-term outlook, of course, continues attractive.

For the time being, investors should not fail to overlook the excellent opportunities currently offered in defensive common and high-grade preferred stocks. At the same time, some form of remunerative liquidity should be retained and the new Canada Savings issue fills the bill admirably.

* * *

J. R. FINDLEY; F. H. Deacon & Co. (Toronto)

The stock market normally discounts in large part those business conditions which may develop or prevail in any succeeding six-month period. Further declines in significant commodity markets seem indicated by a general slackening in business activity.

However, the general business outlook would not suggest to me such an economic deterioration over the next six months to justify much lower prices in selected investment issues such as **Page Hersey Tubes, Consumers' Gas, Union Gas, Interprovincial Pipe Line, B-A Oil, International Nickel, Noranda** and **Bell Telephone.**

* * *

S. G. CHUBB; A. F. Francis & Co. (Toronto)

We have now had a month or two of relative market uncertainty and inactivity, under the influence of which many stocks have been tumbled from their "highs." Warnings abound and, of course, caution, in the sense of a calculation of risks, should always be the watchword.

However, this need not mean financial paralysis or catalepsy, for there are always good investments to be made, and bargains are never more evident than when the ordinary investor has decided to put his hands in his pocket and wait.

A glance at any list of security quotations indicates at least two main areas where the investor can hardly go wrong.

They are:

(1)—High-grade bonds which were issued during the cheap money period and which now have up to say 10 or 11 years to run. Here, as new issues have been placed at rising coupon rates, the old issues have dropped in value and now seem to be within a buying range in which the investor (as opposed to the speculator) can lay plans for future profit.

In this area one thinks immediately of Government of Canada 2¾% bonds due 1968 which today provide a good overall yield to maturity, composed of small cash income (and therefore small cash outgo for income tax) coupled with inevitable capital appreciation as the bonds return to par at maturity or even before.

In this area, too, are found similar low-coupon corporation bonds. Nor should we overlook uranium bonds which are pretty universally selling at discounts, with coupons of 5% or more, and based on a complete payoff by 1962 or 1963.

(2)—The second area to which the investor may look includes the depressed equities of strongly entrenched companies in industries having long-term growth trends. The fact that the market levels have dropped over the past few months and that many peripheral buyers are not now willing to invest, does not mean that our large utility companies are going to write "finis" to their long-term plans. Accordingly, the common stocks of companies generating and/or distributing electricity and gas may be bought for rising income coupled with capital appreciation.

In touching on these two areas of possibility we do no more than scratch the surface. However, we have probably said enough to suggest that, while the in-and-outer may find the going rough, the Canadian investor's path has not been made more difficult by the events of the past few months. Indeed, in some respects it has been made easier. If he does not recognize this and the foreigner does, he has only himself to blame.

Unlisted Stocks

(Compiled by Intercity Securities Corporation Limited, Toronto)

September 16, 1957

	Bid	Asked
Alberta Gas Trunk Line ..	15.75	16.75
Algoma C.&H.B. Rly. com.	27.00	29.00
Do pfd.	1.00	....
Allens Toronto Units	43.00	....
Anglo Can. Telephone A ..	29.00	30.00
Bowes Ltd. 1% pfd.	.65	....
Brinton Peterboro Carpet .	43.00	49.00
British America Assce.	100.00	108.00
B.C. Sugar	30.00	32.00
B. C. Telephone 4½% pfd.	....	85.00
British Mtge. & Trust	223.00	229.00
British Nfld. Corp. (Brinco)	5.00	5.75
Calgary Power 4½% pfd. ..	85.00	90.00
Can. Admiral Corp.	....	30.00
Can. Canners, B	8.00	....
Can. Corp. Management	5.50	6.25
Can. Crush'd Stone 6% pfd.	93.00	....
Can. Delhi Pete.	9.50	9.75
Can. Foreign Securities .	13.00	....
Can. Insurance Shares ...	72.00	85.00
Cawthra Apts.	42.00	....
Chase, Dr. A. W. Common	1.60	2.25
Colonial Steamships com. .	230.00	....
Commercial Finance	51.00	....
Concourse Bldg., units ...	75.00	....
Do V.T	56.00	....
Crown Life Insurance	108.00	118.00
Debenture & Sec., 5% Pfd.	80.00	90.00
Detroit Internat. Bridge ..	16.00	18.00
Dom. Can. Gen. Insce.	42.00	53.00
Dom. Linseed Oil, units ..	2.75	....
Dom. Manufacturers Com.	5.00	....
Do. 7% pfd.	80.00	....
Dover Industries	9.00	9.75
Eastern Can. Savings	16.00	19.00
Eastern Trust Co.	25.00	26.50
Essex Packers common	1.00	2.00
Do pfd.	....	36.00
Goderich Elevator	23.00	24.00
Granite Club	14.25	14.75
Gt. Britain & C. Inv. com.	15.00	16.00
Do pfd.	106.00	110.00
Great West Life	222.00	232.00
Guar. N. Amer. Fully Paid	350.00	375.00
Do. 20% Paid	35.00	....
Halifax Ins.	10.50	....
Highland Dairy Pfd.	40.00	....
Homewood Sanitarium ..	88.00	92.00
Hudson's Bay Co.	29.25	30.00
Humber Amusement Pier .	.30	.50
Humberstone Shoe	8.50	10.00
Industrial Life	85.00	....
Industrial Mtge & Trust	77.00	....
Ingersoll Mach. 4% Pfd.	87.00	....
Ingersoll Mach. & Tool, B	3.75	6.50
Ingram & Bell Com.	4.75	5.50
Jenkins Bros.	67.00	72.00
Lambton Golf Club	370.00	400.00
Lambton Loan Sarnia	78.00	83.00
Lawson & Jones 1% Pfd.	.75	....
Lond. Can. Inv. $3.00 Pfd.	44.00	47.00
Do. A	39.00	42.00
London Life Insurance	137.00	147.00
Lord Simcoe Hotel A	3.75	4.50
Manufacturers Life	214.00	224.00
Maritime Life	120.00	....
Monarch Life 50% Pd.	300.00	....
Morrow Screw & Nut Com.	35.00	41.00
National Life 30% Pd.	310.00	330.00
Nat. Sewerpipe Units	13.00	16.00
Niagara Lower Arch Bridge	....	60.00
Nor. Ont. Nat. Gas Shares	13.00	14.00
Do units	26.00	27.00
($20 Deb. & 1 com.)		
Nor. Tele. 5½% pfd.	19.00	20.00
Oakville Wood 6% pfd.	80.00	87.00
Paramount Oshawa Thea.	12.50	....
Park Lawn Cemetery	2.00	2.50
Pembroke Electric Light	30.00	....
Phillips Electrical	11.50	13.00
Prairie Royalty Trust Units	2.23	....
Prudential Trust	20.00	....
Quebec Nat. Gas ex units .	117.00	121.00
(with 2 com. shares)		
Do. shares	22.00	23.00
Rapid Grip Batten pfd.	65.00	95.00
Reliance Pete A and B	25.00	....
Do., pfd.	37.00	41.00
Robin Jones Whitman pfd.	20.00	....
Royal Oak Dairy B	4.00	....
Sincennes McNaughton Line	3.00	....
Skyway Drive-In Theatres	1.85	2.25
Sovereign Life 25% Paid ..	105.00	112.00
Standard Fuel Common ..	2.75	....
Do. Pfd. $2.25 div.	34.00	36.00
Sun Life Assur.	195.00	215.00
Supercrete Ltd.	4.75	5.25
Teleflex Ltd.	9.50	10.50
Thorncliffe Park	5.25	6.00
Toronto & London Invests.	2.50	3.00
Toronto Med. Arts Bldg.	57.00	....
Trans-Can. Pipe Line Shs.	28.50	29.50
Do. ex units	127.00	131.00
(with 2 com. shares)		
Triarch Corporation	100.00	106.50
United Can. Shares	10.00	11.00
Waterloo Mfg.	6.25	....
Waterloo Trust	30.00	31.50
Westcoast Trans.	31.50	32.50
Western Assurance	70.00	74.00
Wood Alexander 6% pfd. ..	85.00	....

By Kippen & Company Inc. Montreal

Algoma C.&H.B. Rly. com.	26.50	28.50
Cuban Can. Sugar	5.00	....
Dupuis Freres pfd.	16.00	....
Guar. Co. of N.A.	325.00	....
Hart Battery com.	8.00	10.00
Hudson's Bay Co. (new) .	29.50	31.50
Maritime Tel. & Tel.	15.00	16.00
Mid. C. & Dist. Svgs. Bank	44.50	47.00
New Brunswick Tel.	11.25	12.00
N. S. Light & Power	12.00	13.00
Ont. & Que. R. 5% Cap. Stk.	100.00	....
Prov. Bank of Can.	23.50	24.50
Prudential Trust Co.	16.00	....
Sherbrooke Trust Co.	200.00	....
Strategic Materials	17.50	19.50
Sun Life Assurance Co. ..	195.00	220.00

PACKAGED POWER* BY VOLCANO

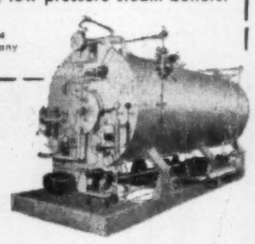
for the

AMERICAN OILS BUILDING,

Calgary, Alberta.

Two 125 H.P. Starfire automatic, low pressure steam boilers.

Architects: Rule, Wynn & Rule
Consulting Engineers: Angus Butler & Associates
General Contractor: Watson Construction Company
Heating Contractor: Snyder & Boon Limited



* Starfire Automatic Boilers Reduce Costs and Breakdowns
- Combination boiler and oil-or-gas firing unit — 9 H.P. to 500 H.P.
- A complete unit — compact design — easy to install.
- No foundation or large chimney needed (requires only vent pipe to clear surrounding building)—connect to steam, water, fuel and electric lines—and it's ready to operate.
- Economical.

More than a century of specialized experience

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Your supply problems are solved when you deal with your local branch of Western Wire & Cable Co. Ltd. Quotations promptly furnished.

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Laboratory tests have been proved in practice by the new Polyethylene-coated aluminum steel re-inforced communications cable supplied by the Western Wire and Cable Company Limited to the Northern Alberta Railways.

Field tests on the 130 mile section from Smith to McLennan, Alberta, showed that "under severely adverse weather conditions—including heavy wet snow, and pole failures—transmission losses were less than with a conventional bare copper circuit on the same route, tested in ideal weather conditions."

Initial costs were less than for conventional cable. The continuity of revenue resulting from uninterrupted service, and the reduction of maintenance expense are additional plus factors in the profit picture.

Western Wire's "A.C.S.R.—Polyethylene Coated Cable" has proved a bargain in dollars for the Northern Alberta Railroads . . . and a blessing in uninterrupted communications for the isolated communities it serves.

Perfectionists in the Production of Plastic Coated Electrical Conductor Cables

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ANNOUNCEMENT

MacMillan & Bloedel Appointment

RALPH M. SHAW

Appointment of Ralph M. Shaw as president of MacMillan & Bloedel Limited, at Vancouver, B.C., to succeed H. S. Berryman, is announced by S. M. Hoffmeister, chairman. Mr. Berryman has stepped down from the presidency on the advice of his physician, after serving the company for 29 years. His broad experience and advice will be sought by and available to the company on a continuing basis.

Mr. Shaw, who has been acting president for the past three months, has been directing for several years the company's world wide marketing organization. He was in charge of the Export Section, Canadian Timber Control, during the war, subsequently returning to the company as export sales manager. He became general manager of sales in 1946, and in 1949 vice-president in charge of sales, the position he held at the time of his current appointment.

Company Meetings

Date	Company	Place
Sept. 19	Marigold Oil	Calgary
Sep. 20	Richwell Pete Ltd.	Toronto
Sep. 23	Britalta Petro Ltd.	Vancouver
Sep. 24	Anaconda Petro. Ltd.	Calgary
Sept. 24	Great Sweet Grass Oils Ltd.	Toronto
Sept. 25	Shawinigan W. & Pwr.	Mtl.
Sept. 27	Area Mines Ltd.	Montreal
Sept. 27	Power Corp. of Can.	Montreal
Sept. 30	Laurentide Accept. Corp. Ltd.	Montreal
Sept. 30	Trans Can. Explor. Ltd.	Toronto
Oct. 2	Aubelle Mines Ltd.	Toronto
Oct. 3	Cdn. Intern. Pwr. Co. Ltd.	Montreal
Oct. 10	Cent. Explorers Ltd.	Toronto

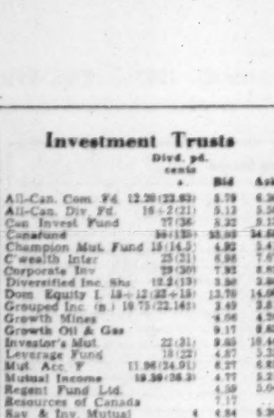
Investment Trusts

	Divd. pd. cents	Bid	Ask
All-Can. Com. Fd.	12.2c(23.8%)	5.70	6.30
All-Can. Div. Fd.	16+2(21)	5.13	5.56
Can Invest. Fund	27(36)	8.32	9.13
Canadaland	16+(13)	13.00	14.65
Champion Mut. Fund	15(14.5)	4.92	5.41
C'wealth Inter	25(31)	6.96	7.67
Corporate Inv.	29(30%)	7.93	8.62
Diversified Inc. Shs	12.2(13)	3.80	3.80
Dom Equity L 15+12(22+15)		13.70	14.00
Grouped Inc. (n.)	10.75(22.14%)	3.49	3.81
Growth Mines		4.06	4.38
Growth Oil & Gas		9.17	9.83
Investor's Mut.	22(31)	9.80	10.44
Leverage Fund	18(22)	4.87	5.35
Mut. Acc. 'F'	11.96(24.9%)	6.27	6.83
Mutual Income	19.50(36.3)	4.77	5.21
Regent Fund Ltd.		4.59	5.04
Resources of Canada		7.17	...
Sav. & Inv. Mutual	4	4.84	5.30
Sup'vised Amer.	5(17)	6.01	6.07
Sup'vised Executive (1955)		33.51	...
Sup'vised Executive (1956)		26.70	...
Sup'vised Executive (1957)		4.58	4.83
Sup'vised Grth Fund	13c	1.66	1.84
Sup'vised Inc. Fund	10+(9)	3.67	3.71
Timed Invest.	11(21)	14.75	*4.75
Trans-Can. A	115.6(102.6)	26.65	...
Do. B	53.8(106.5)	27.20	...
Do. C	22.6(21.2)	5.40	5.90

†Less 9c(*) plus stock exchange commission
•Paid or payable in 1957 total paid in 1956 in parentheses.
♦Plus stock divd.
+Of which 12.1¢ pd. in form of tax-free stk. divd. redeemed for cash immediately

ANNOUNCEMENT

ADVERTISING AGENCY APPOINTMENT



C. D. LOCKHART

The appointment of C. D. Lockhart as Account Executive in the Montreal Office of Pemberton, Freeman, Bennett and Milne Limited has been announced by J. M. Milne, Managing Director for Canada. Mr. Lockhart was formerly Advertising Manager of Canadian Marconi Company and has had wide experience in Newspaper, Merchandising and Advertising fields.

Significant Investors' Index Numbers

No. of Securities	Mach. and equip. 10	Pulp and paper 8	Milling 2	Oils 5	Textiles and cloth-ing 6	Food and allied prod 14	Bever-ages 10	Bldg. mater. 13	Power and Trac-tion 6	Banks 7	Total utili-ties 13	Total co's 99
*1935 to date:												
High	947.5	1238.1	252.0	285.5	410.5	211.0	650.0	636.0	267.1	304.7	219.8	297.8
Low	69.7	51.6	61.2	78.4	78.4	79.5	79.3	66.7	60.2	60.9	62.5	61.2
1957												
Monthly Figures:												
Jan.	782.5	1005.3	147.8	251.6	163.7	181.2	506.3	463.2	227.9	289.9	207.4	273.7
Feb.	794.6	946.4	141.4	244.8	154.7	181.4	488.8	433.4	228.9	271.3	205.6	262.2
Mar.	790.4	968.4	134.5	246.2	153.5	182.8	485.9	438.0	239.0	266.2	208.2	267.5
Apr.	825.6	997.0	136.2	262.9	153.4	197.6	490.9	453.4	248.6	277.5	212.5	276.6
May	868.0	995.4	150.0	278.8	157.2	204.7	516.6	470.9	251.9	279.0	216.1	287.6
June	882.7	986.9	141.9	275.8	161.8	208.2	514.6	462.4	264.6	281.5	216.8	286.9
July	933.2	991.9	137.3	274.3	162.5	204.5	506.2	453.6	262.0	277.6	213.8	284.7
1957												
Weekly Figures:												
Aug. 1	892.7	954.9	140.8	266.6	166.1	202.4	502.7	478.7	252.8	272.3	208.5	274.7
Aug. 8	820.2	937.3	133.7	252.2	160.1	196.6	496.7	476.9	246.2	267.6	205.3	266.5
Aug. 15	780.9	908.6	126.1	241.8	159.3	194.4	479.2	444.9	230.8	256.9	196.6	253.6
Aug. 22	783.6	900.7	127.8	240.8	157.5	193.8	476.4	447.7	232.0	251.6	197.8	252.6
Aug. 29	792.2	878.6	131.1	234.3	159.4	189.3	474.3	443.3	227.0	252.6	194.6	248.4
Sept. 5	731.4	888.4	132.7	233.9	158.2	190.8	475.4	440.9	230.0	251.1	195.5	248.9
Sept. 12	762.4	865.6	129.7	229.5	155.2	187.6	468.9	429.6	222.1	256.3	192.6	246.0

*High and low for year from 1935 to date inclusive are based on weekly figures used by the Dominion Bureau of Statistics.

Toronto Stock Exchange Index

	20 Indus	20 Golds	15 B.M.	15 W.O.
Sept. 16	439.58	78.34	172.31	167.46
Sept. 13	441.77	78.32	174.01	169.34
Sept. 12	438.56	77.37	171.26	168.76
Sept. 11	436.06	76.98	167.45	166.70
Sept. 10	433.77	77.21	166.32	164.53
Month Ago	443.81	78.32	175.09	166.31
Year Ago	470.48	82.60	244.97	166.55
1957 High	490.42	83.72	232.21	193.96
1957 Low	432.52	73.40	168.15	150.30

Montreal Stock Exchange Index

	10 Util	20 Indus	20 Com	10 Pfrs	15 Golds
Sept. 16	137.8	259.2	218.7	1122.62	75.48
Sept. 13	138.8	260.1	219.7	1118.06	75.48
Sept. 12	138.2	258.2	218.2	1092.73	74.97
Sept. 11	137.7	255.9	216.5	1086.67	72.56
Sept. 10	139.4	256.4	217.4	1089.84	74.83
Mon. Ago	142.1	268.2	226.2	1131.54	76.67
Year Ago	141.9	306.5	251.7	1514.83	79.97
1957 High	155.4	300.0	249.4	1435.36	91.06
1957 Low	135.2	255.9	216.5	1086.67	70.51

Dow-Jones Closing Stock Averages

	30 Indus	20 Rails	15 Util	65 Stocks
Sept. 16	478.06	121.71	67.86	163.71
Sept. 13	481.02	132.72	67.58	164.48
Sept. 12	480.56	132.48	67.58	164.32
Sept. 11	474.60	130.84	67.11	162.34
Sept. 10	470.23	129.93	67.04	161.24
Month Ago	478.90	140.35	67.71	166.14
Year Ago	498.76	159.27	68.15	175.24
1957 High	520.77	167.67	74.61	179.87
1957 Low	454.82	129.93	67.04	161.24

Corporation Bonds

(Supplied by Investment Dealers' Assn. of Canada)

Sept. 17, 1957.

Public Utility Issues:	Int. Rate %	Due	Bid	Ask.	Prev. Week Bid
Alg. Cen. H.B.R.	5	'59	132	136	130
Bell Telephone	5	'72	96	99	96
Bowater Pr. Co.	3½	'80	81	84	81
Brazilian Traction L. & P.	4½	'70	80	84	80
B. C. Electric	3½	'67	82	86	82½
Do.	3½	'80	79	82	79
Do.	4½	'81	86	89	86
B. C. Telephone	4¼	'75	88	92	89
Calgary Power	3½	'72	81	84	81
Consumers Gas	5½	'77	101	105	100
Gatineau Pr. D	3½	'70	81	84	81
Gt. Lakes Pwr.	4½	'75	81	85	81
Maclaren-Quebec Power	2	'69	81	84	81
Mex. Lt. & Pr.	5	'75	77	80	77
Nat. Lt. & Pwr.	4½	'61	92	96	92
North. Que. Pr.	4½	'67	88	91	88
Power Corp	5½	'77	93	96*	94
Quebec Power	3	'62	88	91	88
St. Maurice Pr.	2½	'70	80	83	80
Shaw W. & Pr.	4½	'76	92	95	92½
Do	3½	'70	81½	84½	81½
Wpg. Electric	3½	'71	82	85	82

Industrial Issues:

Abitibi Pr., P. & Acadia-Atlantic Sugar	4	'74	82	86	82
Alum. Co. of C.	4½	'72	91	94	91
Bulburst P. & P.	5½	'72	94	97	94
*Bicroft Ur.	5	'62	84	88	85
Br.Am. Oil	5½	'77	98	101	97½
Burns & Co.	4	'63	86½	91½	86
Can Bread	4½	'67	81	84	81
Can. Cement	5½	'76	96	99	96
Can. Steamship	4	'66	91	94	91
Cdn. Breweries	4½	'81	86	89	82
Cdn. Canners	3½	'70	83½	86½	84
Cdn. Celanese	3	'62	87	90	87
Cdn. Chem. Co.	5½	'71	84	88	84
Cdn. Industries (1954) Ltd.	3½	'74	82	86	81
Can. Oil	4	'76	81	84	80
CPR	3½	'72	81	86	81
Can W. Lum.	4	'62	88	91	86
Cockshutt F. E.	4½	'65	84	88	85
Columbia Cell.	5	'68	87	91	87
Cons. Denison	5	'62	94	97	93
*Cree Oil	5	'66	109	113	109
Dom. Fd. & Stl.	4½	'69	90	94	90
Dom Stores	5½	'76	97½	100½	97½
Dom. Tar & Ch.	5	'69	93	97	93
Dryden Paper	4½	'74	87	91	87
T. Eaton Acc.	4½	'74	88	93	89
T. Eaton Realty	5½	'76	94	97	94
E. B. Eddy	4	'74	79	82	79
Elk Falls Co.	5	'76	90	94	90
Gen. Mot. Ac.	4½	'69	89	93	89
Gt. Lakes Paper	5	'76	92	96	92
Gunnar Mines	5	'60	96	99	97
H. Bay O. & G.	4	'75	80	84	80
Husky Oils	5	'68	86½	89½	86
Imp. Tobacco	3	'70	80	83	80
Imperial Oil	3	'69	81	84	81
Indust. Accept.	5½	'75	90	94	90
Irving Oil Co.	5½	'67	92	95	93
Loblaw Groc.	4½	'76	104	108	104
Lorado Uran.	6	'62	88	91	88
Maple L. M.	3½	'63	86½	89½	86½
Massey-Harris	4½	'76	78	82	79
Monarch Knit.	4½	'71	70	75	68
Ont. Jockey Cl.	5½	'72	78	83	77
Phillips Elec.	5	'73	91	96	91
Price Bros.	3½	'66	87	90	87
Pronto Uranium	5	'60	94½	97½	94
Regent Refining	4½	'75	81	85	79
St. Law. Corp.	5	'72	94	98	94
Simpsons Ltd.	4½	'73	90	94	91
Simpsons-Sears	4½	'79	88	92	88
Steel Co.	3½	'67	83	87	81
Traders Finance	4½	'71	92	96	92
Union Accept.	5½	'66	90	95	90
Un. Gr. Grow.	5½	'70	80	85	80
†Westons, Geo.	4½	'71	104	107	106
*With warrants. †Cum. warrants.					
CONVERTIBLE ISSUES					
Abitibi P. & P.	4½	'66	91	95	91½
Anglo-Am. Exp.	5½	'75	82	87	82
Atlas Steels Ltd.	5	'67	104	107	103
Braz. Traction	4½	'71	77	82	77
CPR	3½	'66	86	90	88
Do.	4	'60	88	93	90
Can. Petrofina	4	'72	96	99	97
Cockshutt Farm	5	'68	93	98	93
Dom. Stl. & Co.	4½	'70	140	145	140
Dom. Textile	4	'66	84	88	85
Home Oils	5½	'71	107	113	107
Jupiter Oils	5	'67	86	90	86
Loblaw Groc.	4½	'76	105	110	104
N. Conceord D.	5½	'65	84	90	85
N. Sup. Oils	5	'64	70	84	78
Phillips Elec.	5½	'70	93	96	94
Scurry Oils	5	'64	84	91	86
Silverw'd Dair.	5½	'72	91	97	96
Tr Emp Oil	5	'68	90	93	90
Do	5½	'67	93	96	93
Triad Oils	4½	'71	88	93	88

Bond Redemptions

Bond Issues	Rate	Year Date	Cal. pr.
•Loblaw Groceterias S.F. debs Ser. D	4½%	'76 Oct. 1	$102.375
♦Trans Mountain Oil Pipe Line Co., 1st Mtge. Bds., Ser. C	4%	'72 Oct. 1	$102.78
†Trans Mountain Oil Pipe Line Co., 1st Mtge Bds., Ser. B	4%	'72 Oct. 1	$102.78

▪—$360,000
♦—$64,000.
†—$375,000.

Commodities

	Latest week	Previous week	Same week last yr.
Cattle	$19.25	$19.25	$21.75
Hogs	33.33	37.00	27.50
Copper, lb.	.27	.26½	.40
Coffee, lb.	.69¼	.61½	.61
Sugar raw, lb.	.0568	.0560	.0360
Hides	.15½	.15½	.16
Weekly Commodity Indices			
Dow Jones	157.86	158.84	161.38
U. S. Labor	118.1	118.3	115.1
Monthly Commodity Indices			
Canada (D.B.S.)			
Retail (Aug.)†	122.6	121.9	116.5
W'sale (July)	223.2	228.0	226.6
C. P'm Pro. (July)	212.7	206.4	232.8
U. S. (May)	117.1	117.2	114.3
Gt. Brit. (June)*	155.8	•159.8	155.2
Do. (June)▲	136.5	•138.5	135.5

Note: †Cost-of-Living Index Revised to the Base of 1949=100.
Base of price quotations is as follows: Cattle-Steers, good up to 1,000 lb., to price Toronto Copper-electrotypes, New York. Coffee No. 4 Santos. Spot Raw Sugar 96 degrees centrifugal c.i.f.
•Revised.
Gt. Britain Index Revised. Base year 1949.
*Basic materials index (excl. fuel) for nonfood mfg. ind.
▲All mfg. products other than fuel, food and tobacco.

Municipal Bonds

Sept. 17, 1957.

Calgary	3½	'69	78⅝	81⅛	5.65
Edmonton	3½	'69	79¼	81¼	5.65
Halifax	3½	'66	83	85½	5.60
Hamilton	3	'67	80¼	82¼	5.35
Montreal	3	'70	75½	78½	5.21
Moose Jaw	3½	'69	91⅝	93⅝	5.75
Ottawa	3¼	'68	82	84	5.30
Regina	3	'64	82	83⅞	5.70
Saint John	3½	'65	83½	86	5.70
Toronto	3	'68	79	81	5.25
Vancouver	3¾	'69	82¼	84½	5.60
Victoria	3¾	'68	82¼	84¼	5.65
Windsor	2¾	'75	66⅜	68⅝	5.50
Windsor	3½	'75	74⅛	76⅛	5.60
Windsor	2½	'75	63½	65½	5.50
Winnipeg	3	'69	77½	79½	5.40

Record of Financing

Sales by Municipalities, Provincial and Dominion Governments. Offerings of Corporation and Securities.

DOMINION

Government of Canada Treasury Bills — Due Dec. 6, 1957, $130,000,000. Issued Sept. 5, 1957. Sold at 99.010 to yield 4.01%.

PROVINCIAL

Province of Saskatchewan — 5¼% sinking fund debentures, to mature Oct. 15, 1977, $7,000,000. Dated Oct. 15, 1957. Offered at 99.25 and accrued interest to yield 5.31% by Harris & Partners Ltd., Burns Bros. & Denton Ltd., Dawson Hannaford Ltd., Midland Securities Corpn. Ltd. and Osler, Hammond & Nanton Ltd.

Province of New Brunswick — 5% sinking fund debentures, to mature Oct. 1, 1962 and 1977, $6,000,000. Dated Oct. 1, 1957. Offered at 100.00 and accrued interest to yield 5.45% and $93.75 and accrued interest to yield 5.35% by Dominion Securities Corpn. Ltd., Bell, Gouinlock & Company, Ltd., Nesbitt, Thomson and Co., Ltd., Wood, Gundy & Company Ltd., McLeod, Young, Weir & Company, Limited, Greenshields & Co. Inc., A. E. Ames & Co. Ltd., Mills, Spence & Co., Ltd., Gairdner & Co. Ltd., L. G. Beaubien & Co., Ltd., Eastern Securities Co. Ltd., Cochran, Murray & Co., Ltd., James Richardson & Sons, F. J. Brennan & Co. Ltd., Burns Bros. & Denton, Ltd., Stanbury & Co. Ltd., W. C. Pitfield & Co., Ltd. and Equitable Securities Canada Ltd.

MUNICIPAL

City of Grand Forks, B.C. — 5½% debentures, due July 15, 1958-77, $326,000. Issued Aug. 30, 1957. Bought privately by Pemberton Securities Ltd.

School Commission for Mun. of Clermont, Que. — 5½% debentures, due Oct. 1, 1958-77, $210,000. Issued Sept. 1, 1957. Sold at $96.25 to J. F. Simard & Cie.

Village of Fort St. John, B.C. — 5% debentures, due Sept. 1, 1958-77, $235,000. Issued Sept. 3, 1957. Sold at $97.62 to Pemberton Securities Ltd.

Winnipeg General Hospital, Man. (Guar. by City of Winnipeg) — 5½% debentures, due Sept. 3, 1958-77, $2,000,000. Issued Sept. 4, 1957. Sold at $97.142 to Oldfield, Kirby & Gardner Ltd., Equitable Securities Canada Ltd., Dawson, Hannaford Ltd. and Gairdner & Co. Ltd.

County of York, Ontario — 5¼% debentures, due June 1, 1958-66, $330,000. Issued Sept. 12, 1957. Sold privately to a syndicate headed by J. L. Graham & Co. Ltd. and including Dawson Hannaford Ltd., and The Canadian Bank of Commerce.

Municipality of the District of Chester, N.S. — 5½% 1-20 year debentures, $112,000. Issued Sept. 16, 1957. Sold at $97.22 to Dominion Securities Corpn. Ltd.

CORPORATE

Firth Sterling (Canada) Ltd. — 6% debentures, due Mar. 1, 1967, $176,000. Bought privately by Harris & Partners and Burns Bros. & Denton Ltd.

Petrofina Société Anonyme — 5¼% and 7½% debentures, to mature Sept. 18, 1977, $25,000,000 (U.S.) Dated Sept. 18, 1957. Offered at $100.00 and accrued interest (United States Funds) by W. C. Pitfield & Co. Ltd. and Greenshields & Co. Inc.

Westcoast Transmission Company Ltd. — 5½% subordinate debentures, series C, due Apr. 1, 1988, $25,000,000. Issued Sept. 19, 1957. Offered at $100.00 (Canadian funds) and accrued interest (payable in U. S. Funds) by Wood, Gundy & Co. Ltd., Nesbitt, Thomson and Co., Ltd., and Norman R. Whittall Ltd.

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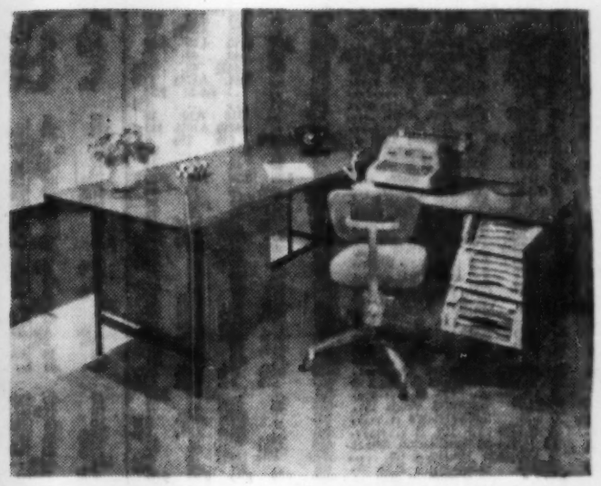
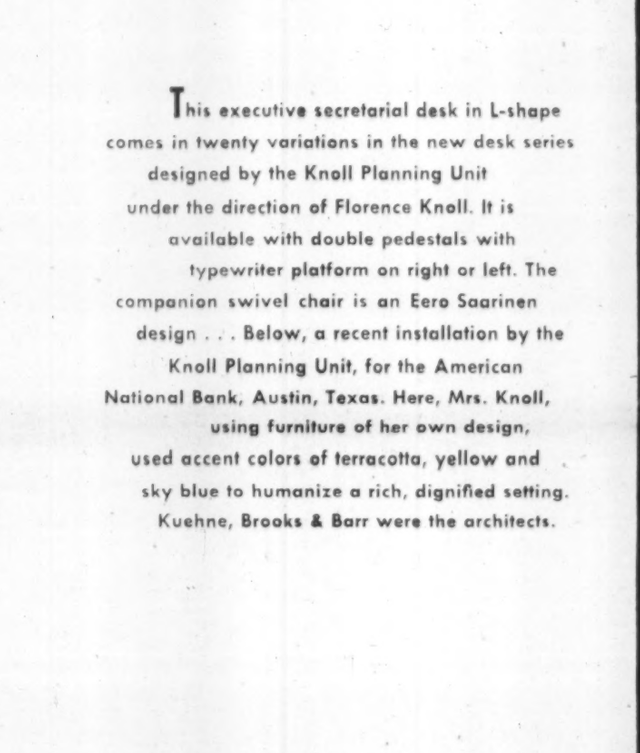
TILDEN rent-a-car SYSTEM

System Head Office: 1500 St. Catherine Street West, Montreal

This executive secretarial desk in L-shape comes in twenty variations in the new desk series designed by the Knoll Planning Unit under the direction of Florence Knoll. It is available with double pedestals with typewriter platform on right or left. The companion swivel chair is an Eero Saarinen design . . . Below, a recent installation by the Knoll Planning Unit, for the American National Bank, Austin, Texas. Here, Mrs. Knoll, using furniture of her own design, used accent colors of terracotta, yellow and sky blue to humanize a rich, dignified setting. Kuehne, Brooks & Barr were the architects.



New Knoll-designed secretarial desk



American National Bank, Austin, Texas

KNOLL INTERNATIONAL CANADA LIMITED

20 EGLINTON AVENUE EAST, TORONTO, ONTARIO

THE WEEK'S QUOTATIONS

Quotations here listed are the official, exchange prices for listed stocks including curb market quotations. For unlisted stocks, quotations by unlisted dealers are given. The Financial Post cannot accept any responsibility for these quotations.

Bid and Ask quotes of Toronto and Montreal exchanges up to press time are published on page 44

Industrial Stocks

WEEK ENDING SEPTEMBER 13, 1957

Range 1957 High	Low	Div. Y'ld R'teSep13 $	%	Company	Sales	Last Sept. 6	Week end. Sept. 13 High	Low	Close or Latest
1.50	.60			Abitex Lumber	36500	.66	.70	.60	.65
28½	25¼	1.70	6.0	Abitibi	14827	26½	28½	25¼	28⅝
24¼	21¾	1.12½	5.1	*Do. 4½% pref.*	605	23½	23½	23¼	23¼
9½	7	.50	5.9	Acadia Atlan.	1510	8½	8½	8	8½
95	83	5.00	6.0	Do. 5% pref.	31	90	83	83	83
21	17½	1.20	6.7	Do. (A)	479	18½	18⅝	18	18
		•		Admiral	nil		B9¼	A9½	
8½	6¼	1.33		Agnew Surp.	400	8¼	8⅝	8¼	8⅝
9¾	8¼	.59	6.0	Do. pref.	nil		B9	A9½	9¼
1.85	1.40			Albt. Dist.	6050	1.50	1.55	1.50	1.50
1.70	1.25			Do. V.T.	300	1.45	1.45	1.30	1.30
21½	15			Albt. Gas Tr.	7145	17¼	17.65	16.00	16.00
40½	32¼	1.25		Algoma Steel	13228	31¾	32¼	29	30½
50½	35¼	1.22½		Aluminium	45695	37⅞	39¼	35¼	38¾
23½	20½	1.00	4.7	Alum. of C. 1st p	410	21½	21½	21¼	21½
48½	42¾	2.25	5.0	Do. 2nd pref.	810	44	45	44½	45
2.25	2.20			Analogue	800	2.50	2.50	2.20	2.20
6.00	3.85	4.20		Andian Nat.	nil		B3.80	A5.00	3.85
20	20	1.50		Anglo. Can. Oils (Brandon)	nil		B19		20
39½	29	2.00	6.9	Ang. Cdn. Pulp	125	30	29	29	29
51½	47	2.80	5.8	*Do. pref.*	445	49¼	49¼	48½	48½
46	38	2.25	5.9	Ang. Can. Tel. p	219	38½	38½	38	38
10¼	8½	.52½	8.2	Ang. Nfld.	7235	9¾	6½	5½	6¾
		.41.25		Angl-Scand. Inv.	nil				11
25½	22½	1.20	5.2	Anthes Imp.	nil		B23	A24	23
40	23			Arcan Corp.	25	34	29	29	29
20	15½	.80	4.6	Argus	4222	18¼	18¾	17	17½
50¾	44	2.40	5.7	Do. pref. A	75	45½	44½	142	142
43	40	2.50	6.3	Do. B pref.	75	40	40	40	40
		.41.60		Aro Equip.	nil				40
35	25¼	1.00	2.60	Asbestos	2373	29	29	27½	29
4.50	2.00			Ash Temple	100	3.00	3.00	12.50	12.50
94	90	6.00	6.7	Do. (A)	nil			A90	90
9½	8½	.65	7.5	Do. (B)	nil		B8⅝	A8¾	8¾
12	12	.60	4.8	Ashdown Hd. A	nil				12½
12¾	10	.72	6.3	Do. (B)	200	11¾	11⅝	11¼	11⅝
11¼	8½			Assoc. Artists	3600	8⅝	6¾	6½	8¾
19¼	6½			Do. Warr.	631	9	9	6½	6½
119	90			Atlas Steels	2340	97	95	91¾	93
	14.00	4.2.00		Assoc T&TA pf.	nil		B100		101
	5			Allan. Accept.	200	6¾	6¾	6½	6½
14	14	1.10	8.5	Do. pref.	nil		B14	A18	13
29¼	19	1.75	25	Atlas Steels	5962	21⅝	22	19	20¼
18	13	1.60	1.25	Auto Electric	190	14	14	13¾	14
11¼	10	.50	4.5	Do. (A)	nil		B11	A14	11
4.75	3.60	•		Auto Fabric A	nil		B2.50	A3.50	12.75
1.10	.50	•		Do. (B)	275	.75	1.00	1.00	1.00

B

42½	37	1.20	2.90	Bk. Can. Nat.	1205	37½	37¾	37¾	37½
54¾	41½	1.40	2.80	Bk. Montreal	5392	43	43⅝	42	42¾
60	52	2.00	4.20	Bk. N. Scotia	2673	53½	54½	52¾	53⅝
		3.20	4.80	Barber-Ellis	nil		B42		
		3.50		Do. pref.	nil				
5	4½	•		Barcelona	nil		B3.50	A4.25	13¾
9	8½	1.00	11.6	Baxo & Innes A	nil		B8½	A9	8⅝
60	50	3.00	4.50	Bathurst Pr. A	nil			A47½	50
40	24	1.25		Do. B	10	23	25	25	25
7½	5	•		Beatty Bros.	580	5	5¼	5	5¼
30¼	29½	1.10	3.6	Beaubrun	nil		B27½	A28⅝	30¼
19¼	16	1.00	5.9	Beaver Lumber	600	18	17¼	17	17
20	16	1.00	5.5	Do. A	15	18	18¼	18¼	18¼
25	25	1.40	5.0	Do. pref.			B17½	A25	25
10½	9¾	.15		Belding Cort.	nil		B10½	A12	12
13	10½	.70	6.4	Do. pref.	nil		B10	A13½	11
9	5			Belgium Stores	nil			A8	5
14	12½	1.00	8.0	Do. pref.	nil				14
48½	39½	2.00	5.0	Bell Telephone	34559	40⅝	40½	39½	39⅝
7	5¼	.40	5.3	Biltmore Hats	nil		B6½	A7	7½
13	10½	1.00	8.3	Do. A pref.	nil		B12	A12½	12
50	50	2.40	4.80	Bird Constr.	nil		B50		50
12	12			Blue Ribbon	nil		B12	A15	13
38½	35	2.80	7.1	Do. pref.	nil		B35	A35¼	35
6.00	4.25	1.12½	%	Bowater Pap.	3424	4.60	4.75	4.25	4.35
45	40	2.50	6.3	Bowater N.A. 5% p.	625	43	43	40	40
43	40	2.75	6.2	Do. 5½% pref.	945	44	44¾	43	44½
16	12½	1.00	8.3	Boyes Ltd.	nil		B14	A17¾	13½
10¾	8	.60	6.5	Boyles A	nil			A9.50	9.25
9	7½			Do. B	nil				7¾
18	15	1.00	6.7	Brant. Cord.	nil		B12	A15	15
12¼	9	.50	2.8	Do. B	nil		B9½	A10½	13
10	7½	1.50	2•	Brazilian Tr•	13657	8¼	8½	7⅝	8
8.90	4.10			Do. warr.	323	8.50	8.25	7.95	8.00
19	13½	1.50		Bright, T. G.	50	18½	18	18	18
20	19	1.15	5.8	Do. 5% pfd.	nil		B18	A21	20
33½	29⅜	1.40	1.50	Br. Am. Bk. Notes	50	32	32	32	32
57½	43¼	1.00	2.2	Brit. Amer. Oil	20317	46¾	46¾	44¾	46
84	75	4.00	5.4	B.C. Elec. 4% pf.	10	75	74½	74½	74½
42	39½	2.62½	5.2	Do. 4¼% pref.	340	40	40¾	39	40½
47	40	2.25	5.5	Do. 4½% pref.	745	42	40¾	40	40½
90¾	88	4.75	5.3	Do. 4¾% pfd.	85	90	90	90	90
6	5	.50	5%	Do. 5% pfd.	480	46	46	45	45¾
13½	10	.50	4.6	B.C. Forest	6870	11	11	10¾	10⅞
17½	13¾	.75	5.6	B.C. Packers A	175	13¾	13½	13¾	13¾
17½	13	1.00	7.5	Do. B	280	13	13¾	13¾	13¾
53	41	1.40	3.2	B.C. Power	5630	44¾	44¼	42¼	43½
47¼	39½	2.00	4.9	B.C. Tele.	714	41¾	42	40½	40½
1.10	.88			B.C. Turf	1400	.90	.90	.90	.90
17¾	13½	1.00		Brown Co.	3825	14⅜	14⅝	13¾	13½
8	6	11.20		Bruck S. Mills A	100	6¼	6¼	6¼	6¼
3	2			Do. B	nil		A3.25		2.50
37	29½	1.80	5.8	Build Prod.	435	32	32¼	31	31
7⅛	6	.50	7.8	Bulloch's A	nil		B6¼	A6⅝	6¾
5¼	4	1.17½		Do. B	nil		B5½	A5¾	5½
15½	13	1.45	25	Burlington St.	450	13¾	13¾	13	13
12	9	.60	1.10	Burns & Co.	1749	10⅞	13¾	9	9⅞
7¼	6⅝	.45	6.8	Burrard D.D. A	nil		B7	A7	6⅞
2.25	1.50	•		Butterfly Hos.	385	2.00	2.00	2.00	2.00

C

22	21	1.50	7.1	Caldwell L. 1st pf.	nil			A22	21
		2.00		Do. 2nd pref.	nil				
80	61	2.00	3.3	Calgary Pwr.	1527	66¼	65¾	61	61
103	95	5.00	5.2	Do. 5% pref.	20	95	96	95	96

Canada

3.25	2.50	.10	3.1	Canada Bread	732	2.60	3.25	2.95	3.25
55	50	2.50	5.0	Do. pref.	nil		B42	A53	50
30½	24½	1.00	3.9	Canada Cement	3075	26¾	26¾	25¼	25⅝
25	20	1.00	4.9	Do. pref.	392	26¾	27	26¾	26¾
8½	5	1.10		Can. Cr. & C. St.	200	5½	6¾	6¾	6¾
24	20¼	1.20	5.5	C. & D. Sugar	1825	21½	22	21¼	22
14	14	1.75		Can. Floor. B	nil		B12		14
17	12	.40	1.20	Can. Foils	nil		B15½	A15⅞	16½
16½	12½	.60	1.20	Do. A	25	17¾	17¾	17¾	17¾
13	12			Can. Forg.	nil		B9¾		13½
28	24½	1.50	6.2	Do. A					24½
43	31¼	1.50	4.7	Can. Iron	2995	32½	32¾	31¼	32
111	94½	4.25	4.5	Do. 4¼% pref.	55	94½	194	194	194
175	128	14.60		Can. Life			B120	A140	128
10	8			Can. Machine	nil		B8½	A8½	8½
55	47½	2.00	•	Can. Maltings	120	50	50	48½	48½
24¼	22½	1.17	5.1	Do. 4½% pfd.	56	22	22	22	23
29½	25	1.50	5.12½	Can. Packers A	725	26	26	26	26
37¼	34	1.50	5.12½	Do. B	600	34¾	36	35	36
90	73	13.45	.10	C. Perm. Mtge.	365	76	76	73½	73½
94	88	4.40	5.0	C. Safeway pref.	nil			A89	88
45½	39	1.00	2.7	Can. Steamships	70	38	38	37½	37½
12½	10½	.62½	5.7	Do. pref.	266	11¼	11	11	11
20½	17¼	1.75	.15	Can. Vinegars	600	30	20½	20	20½
				C. West Cord. A	nil				8½
				Do. B	nil				
4	3	4.00	1.9	Can. W. Cable A	nil				3.10
24	16	.80	5.0	Do. B	420	16¼	17	16	16

Canadian

125½	125	1.00	0.8	Canadian Arena	nil		B125		125
5	4	•		Cdn. Bakeries	nil		B5	A8	5
56	43½	2.40	4.20	Cdn. Bk. Com.	4313	46	47¼	45¾	46¾
26	23½	1.30	6.0	Cdn. Breweries	5248	24¾	25	24	25
29¼	23¾	1.25	4.9	Do. pfd.	860	25	26	25¾	25¾
19	11½			Cdn. Br. Al. B	1770	13⅜	13½	11½	12
30¾	25½	1.25	.25	Cdn. Bronze	300	27	27	26	26
103	100½	5.00	5.0	Do. pref.	nil				100½
14½	13¼	.75	5.6	Cdn. Canners A	220	13⅞	14	13½	13½
16¼	12¾	1.50	1.15	Cdn. Celanese	2555	15	15¼	15	15½
30	28½	1.75	6.5	Do. $1.75 pref.	185	28	27	27	27
16¾	15	1.00	5.6	Do. $1.00 pref.	100	16	18	16½	18
9	6			Cdn. Chem.	2655	6¼	6¼	6	6½
7¼	4¾	•		Cdn. Collieries	7478	5½	5¼	4¾	5½
85	85	1.05		Do. pref.	8350	.70	.72	.69	.69
3.60	3.50			Cdn. Convert. A	nil			A4.00	3.50
4	4			Do. B	nil				4
14	10	•		Cdn. Cottons	120	13¼	11¾	11¼	11¼
6	6			Do. pref.	nil		B6		6
9	7½	.15		Cdn. Drawn Stl.	nil		B8	A9	8
10¾	10	.60	1.12	Do. pref.	50	10	10	10	10
22½	16½	1.50		Cdn. Dredge	760	17½	18	17	17¼
21	18	1.20	6.7	Cdn. Fairb.	130	19	18	17½	18
125	120	6.00	4.9	Do. pref.	nil		B120½	A122	122
3.50	3.25	•		Cdn. Food Prod	nil		B2.55	A3.00	2.50
8¼	7			Do. A	nil		B7	A8	7
50	41	•		Do. 4½% pref.	35	40	41	41	41
755	700	8.00	4.00	Cdn. Gen. Elec.	nil		B555	A1000	700
31½	28	1.87½	.15	Cdn. G. Inv.	330	28¼	29¼	28	28
23	17½	1.75	•	Cdn. G. Sec. A•	55	17½	17	16	17
23	20	1.75	•	Do. B•			B17	A25	18½
15	8½	•	12½	Cdn. Hydrocarb.	3075	10½	10¾	9¾	10
6¾	5½	.10		Cdn. Ice Mach.	nil		B6¼	A7½	6
13	11	.80	7.0	Do. A	nil		B11	A12	11½
20	15½	1.40		Cdn. Indust.	2498	17½	19	16	19
80	75	3.75	5.0	Do. pref.	nil			A80	75
47	44	2.25	.50	Cdn. Ingersoll R.	75	42¾	46	46	46
20	19	1.75		Cdn. Int. I. Tr.	nil			A20	20
89	86¼	5.00	5.9	Do. pref.	nil		B80		185
19¼	14½			Cdn. Int. Pwr.	6825	15¼	15¼	14½	14½
45½	43	3.00	7.0	Do. pref.	1084	43½	43½	43	43
28	16	•		Cdn. Locomo.	nil			A18	114
4.10	2.85	1.05		Cdn. Marconi	633	3.00	3.00	2.85	2.90
29½	20¼	.80	2.4	Cdn. Oil	6484	33½	33⅞	30	32¾
82	80	4.00	5.3	Do. 4% pref.	25	176	175	175	175
102	94	5.00	5.1	Do. 5% pref.	70	98½	98¾	97	98¾
160	130	2.00	1.5	Do. 8% pref.	nil		B138	A140	135
21½	11			Do. warr. 1953	20	18	19	18	18
18.00	4.30			Do. warr. 1955	3577	10.50	10.75	9.25	10.00
34¼	28¼	1.50	1.25	Cdn. Pacific	13914	29½	29¾	28½	29½
26¼	20			C. Petrofina pfd.	4317	22½	22¾	20½	22
7¾	5			Cdn. Pr. & Pa. S.	nil		B5½	A7	6¾
2.75	84½			Cdn. Propane	nil		B1.35	A3.50	1.50
40	23½			Cdn. Salt	nil		B24¼	A25	30
4	2	•		Cdn. Silk A	nil		B2.00	A3.00	2.50
110¾	81	.60	2.10	Cdn. Tire	5	91	87	87	87
		1.50	4.8	Cdn. Pref.					100
90	80	5.00	5.5	Cdn. Utilities pf.	10	90	90½	90½	90½
32½	27	4.25	5.4	Do. 4¼% pf.	nil		B75	A78	179
32½	25	1.50	5.9	Cdn. Vickers	450	26	26	25	25½
18	11	1.20		C. Wallpaper A	nil		B15	A22	14
17	10½	5.20		Do. B	500	15	21	15	18
17	14¾	.80	5.2	Cdn. West Gas p.	370	15¼	15½	15¼	15½
30	13	1.00	2.2	C. Westinghouse	nil		B41½	A45	41
5.12½	4.00	4.15	.10	Capital Estates	2200	5.12½	5.12½	5.12½	5.12½
1.55	1.30			Carling Br. Alta.	nil		B1.40	A1.58	1.42
1.45	1.10			Do. V.T.	nil		B1.30	A1.40	1.30
12½	11½	.60	1.30	J. B. Carter A	nil		B11.26	A11.75	11.75
28	28	1.00		Do. B	nil		B26.00		25.00
32	19	.50	1.35	Catelli Food A	100	32	32	30	32
38¼	34	1.00	1.35	Do. B	nil		B33½		35½
		4.75		Celanese Corp.	nil				
		4.50		Do. 4½% A pf.	nil				
		7.00		Do. 7% 2nd pf.	nil				
		3.95		Cent. Can. Invest.	nil		B80		130¼
100¾	100	5.00	5.0	Do. pref.	nil			A100	100¾
58	52	1.40	2.8	Chartl. Trust	25	53	150	150	150
4.00	3.35			Chatco Steel pf.	nil			A3.90	3.80

Range 1957 High	Low	Div. Y'ld R'teSep13 $	%	Company	Sales	Last Sept. 6	Week end. Sept. 13 High	Low	Close or Latest
16	13½	1.00	6.9	Chateau-Gal.	100	15	14½	14½	14½
78	62	12.25		Chrysler Corp.	275	73	74¾	71	73½
.50	.50	18ct		Cinzano A	nil		B55		1.55
85	85	5½%		Do. 5½% pref.	nil				85
2.80	2.00			Circle Bar Knit.	nil		B2.50	A3.00	2.50
6	4			Do. A	nil		B4.75		4.50
10½	8½			Claude Neon A	nil		B6½	A8	6½
10½	9½			Do. B	nil		B5½		6¼
100	65			Do. pfd.	135	100	100	100	100
23¼	15	1•		Cochrane-Dun.	nil		B20¼	A21½	20¼
17	14	.80	5.7	Do. A	nil			A14	14½
8⅞	7¼			Cocksbutt Farm.	2830	8⅜	8⅜	8	8
17¼	16	1.00	6.3	B. J. Coghlin	25	115½	16	16	16
		1.75	+.25	Coll. Terminal	nil		B13		11½
14½	14½	1.75	+.25	Do. pref.	nil				14½
12¾	10	.60	5.1	Comb. Enter.	1210	11¾	11¾	11¼	11¾
11½	9¾	.80	8.0	Conduits Nat.	nil		B9	A10	10
140	101	2.60	1.9	Conf. Life	20	120	110	105	105
7¼	5¾	1.50		Cons. Bakeries	100	7¼	7	7	7
1.60	1.20			Cons. Div. Sec. A	57	1.20	1.10	1.10	1.10
36	33	1.00		Do. pref.	nil		B30		33¾
7	6	1.25		Cons. Fire Ins	nil		B6	A7	6
				Cons. Food	3112				16½
28¾	20½	.80	3.6	Cons. Min. & Sm.	21312	21¼	22¾	20½	22¾
39½	29½	1.60	+.40	Cons. Paper	7987	32	31½	30	31½
6.15	2.20			Cons. Press A	50	3.25	4.00	4.00	4.00
1.75	1.00			Do. B	nil		B1.50	A3.50	1.75
3¾	2½	•		Cons. Textiles	460	2½	2½	2½	2½
18⅝	18⅜	1.00	5.4	Do. pref.	nil			A17	18⅜
41	27¼	.80	2.5	Consumers Gas	2606	33¾	33¾	32	33½
104⅞	101	5.00	4.9	Do. A pref.	145	101	101½	101	101½
31	23	1.50	6.0	Consumers Glass	190	25	25	25	25
		11.35		Cont. Can.	nil		B42	A42½	
6¼	4	.15	3.2	Copp Clark	200	4.90	4.75	4.75	4.75
17¼	14½	1.10	7.0	Corbys Vot.	1785	16	16	15½	15⅝
17	14¼	1.10	6.9	Do. B N. Vot.	135	15½	16	15⅝	16
14	10½	.70	+.10	Cosmos Imp.	340	11¼	11¼	11	11
3.50	2.65	1.15		Craig Bit			B2.75	A3.25	3.25
35	23	1.55		Crain, R. L.	nil		B31	A35	32
6¾	5½	.10	+2.05	Credit Accept.	nil				5½
4.25	2.50			Crestbrook Tim.	200	2.75	2.65	2.50	2.50
42½	35	2.75	9.5	Do. pref.	10	129½	129	129	129
1.81	1.35			Do. warr.	nil		B1.25	A1.60	1.35
53	45	2.00	3.8	Crown Cork	nil		B50	A54	52
23½	18½	.60	3.2	Crown Trust	140	19	18½	18½	18½
54½	44½	1.80		Crown Zeller	415	46	46	44½	46
22	17	1.00		Cr. Zeller (Can.)	2580	18	18¼	17	17
27	21			Crow's N. Coal	nil		B16	A19	120¼

D

88	88	7.00	8.0	Dale & Co. pfd.	nil		B88		88
50	48	3.00		David & Fre. A	nil			A49	48
11	7½			Davis Leather A	355	7½	7½	7½	7½
2.50	2.00			Do. B	400	2.50	2.50	2.50	2.50
190	190	11.00		De Havilland A	nil		B165	A250	190
33	25¼	1.20	+1.50	Distill.-Seagram	6142	26¼	26¼	25¼	25⅞
435	425	10.00	+7.0	Dom. Ang. Inv.	25	4.35	4.55	4.55	4.55
95	95	5.00	5.3	Dom. pref.	nil		B95		95
28½	19¼	1.45	.30	Dom. Bridge	4420	24½	24¼	23	24
10	6½			Dom. Coal pref.	15	8	8½	8	8
14½	13⅜	1.00		Dom. Corset	1000	14	14¼	14	14¼
8	7			Dom. Dairies	nil		B7.05		16.50
17⅜	17	•		Do. pfd.	nil		B17	A18	17½
13	9	.25		Dom. Electro	25	18½	18¾	18¾	18¾
25	20	1.50	+.20	Dom. Engineer	125	21	20	20	20
10¾	10	1.45		Dom. Fabrics	nil			A12	10
18	18	1.50	6.5	Do. 2nd pref.	nil		B20		123
33½	26	1.00		Dom. Fdry.	5124	29	29	26	27¾
99	95¾	4.50	4.7	Do. 4½% pref.	200	97	97	96½	96½
69	51	2.00	+1.60	Dom. Glass	3580	60	60	58½	60
15	14	.70	5.0	Do. pref.	nil		B14	A15	14
		18.00		Dom. Insur.	nil		B166		225
16	11¾	1.50		Dom. Magnes.	1205	13½	14¼	13½	13½
31½	28	1.60	+1.40	Dom. Oilcloth	280	28	29	28	29
27½	21	1.40	+1.20	Dom. Scot. Inv.	nil			A24½	24
47	43	2.50	5.6	Do. pref.	nil			A45½	45
32½	19½	1.00	3.7	Dom. St. & C.	96873	26⅜	27½	25	26¼
37½	29½	1.25	2.7	Dom. Stores	1768	47	47½	46	47
12⅞	9	.50	5.0	Dom. Tar. & Ch.	21457	10½	10⅝	9⅝	10
22	17½	1.00	5.9	Do. pref.	10	18½	17	17	17
9¼	7¾	1.45		Dom. Textile	1850	7⅞	8	7¾	7⅞
135	116	7.00	5.9	Do. pref.	nil		B118		115
1.25	.50			Dom. Woollens	200	.75	.75	.75	.75
21	13	.80	+49.19	Donald Ropes B	25	13½	13½	13½	13½
1.75	.80			Donnell & Mudge	3500	.95	1.00	.80	.85
13⅜	10	.30		Donnue Bros.	200	10	10	10	10
30½	30			Dow Brew.	560	36	30	30	30
22	16½	1.40		Du Pont of Can.	3266	18½	20	18	18½
83	75	3.75	4.8	Do. pfd.	nil		B74	A80	77½
7¾	6½	.55	7.6	Dupuis Fre. A	nil		B7	A7¼	7¼

E

	10	6		East Koot. Pr.	nil				10
135	97	3.50		Do. pref.	7	120	115	115	115
		4.60	+1.50	East Baker 4% pf.	nil				90
8.35	1.50			East Steel	775	1.75	2.00	1.50	2.00
13	7¼	1.20	+.30	Easy Washing	nil		B7¼	A10	7¼
15⅜	13	1.00	7.7	Do. 5% pref.	25	14	13	13	13
41¾	33	1.00	+2.60	Economic Inv.	80	38	39	35	35
27¾	25	1.12½		Eddy Match	375	25¾	25½	25½	25½
50	42	1.12½		Eddy Paper	nil		B41¾	A44½	42
58	41	1.00	2.4	Do. A	120	42	42	41½	41½
3.10	2.

Mining Stocks

WEEK ENDED SEPT. 13, 1957

Range 1957 High	Low	Company & Dividend ($)	Sales	Last Sept. 6	Week Ending Sept. 13 High	Low	Close or Latest
.16	.07	Acadia Ur.	4575	.09	.08½	.08	.08½
13.75	1.00	Aconic	60475	1.82	2.00	1.65	1.75
12.37½	.64	Do. v.t.	126440	1.20	1.29	1.13	1.14
.12	.07	Ad Astra	1000	.10	.09	.09	.09
10.12½	2.70	Advocate	4250	3.00	4.00	4.05	4.00
.25	.25	Agassiz	nil		B.13½		.25
.10	.03	Ainsworth	nil		B.03	A.04	.03½
.44	.26	Akaitcho	4210	.26	.30	.30	.30
.20	.07½	Alba	1300	.10	.10	.10	.10
25.25	10.00	Algom	3630	20.25	20.25	18.75	19.50
95.50	92.00	Do. 5% debs.	40	94.00	94.00	94.00	94.00
17.00	5.05	Do. warr.	4956	11.50	12.00	10.75	11.37½
21.50	21.50	Do. v.t.					21.50
.70	.29	Alscope	7200	.36	.35	.30	.30
.11	.04½	Alta.	1000	.08	.04½	.04½	.04½
.29	.14	Amal. Lard	nil		B.14	A.16	.15
2.00	1.00	Amal. R.M.	13518	1.50	1.70	1.23	1.40
.17	.06½	Amer. Ir.	500	.07	.06½	.06½	.06½
1.98	.95	Am. Neph. .04	8375	1.11	1.22	1.02	1.10
.24	.10	Amer. Stand.	500	.10	.12	.12	.12
.50	.35	Amos Lith.	nil			A.90	.35
2.60	.70	Anacon	17838	.78	.81	.70	.78
33.00	8.00	Anglo-Hur.	40	18.50	10.37½	10.37½	10.37½
.94	.37	Ang.-o-Rou.	8600	.43	.45	.41	.45
.39	.28	Anvil	5054	.34	.30	.28	.28
.30	.10½	Anthonian	9000	.12	.15	.12	.14
9.29	1.65	Arcadia	39400	1.25	1.40	1.18	1.30
.82	.56	Do. warr.	1200	.80	.60	.60	.80
1.48	.37	Area	25400	.92	.92	.76	.80
.19	.07½	Arjon	16200	.08½	.10½	.08½	.10½
.10	.04	Arlac	3000	.04	.04	.04	.04
.17	.05½	Atlas Sulp.	8000	.15	.13	.12	.12
.14	.06	Atlas Y'fe	500	.07½	.08½	.08½	.08½
1.16	.29½	Atlin-Ruffi.	96300	.40	.42	.35	.42
.17	.07	Aubelle	8500	.07	.08	.07	.08
.20	.08	Auli	nil			A.08	.08
.28	.16	Aumacho	1300	.17	.18	.14	.16
.21	.08½	Aumaque	12500	.09	.09	.08½	.08
8.01	1.62	Aunor .16	533	1.75	1.78	1.76	1.76
.12½	.06	Avillabona	2000	.08	.07	.06	.06
		B					
1.75	.60	Baker Talc	16050	.60	.65	.60	.65
.14	.03½	Band Ore	5000	.05	.04	.03½	.03½
.35	.10	Bandowan	2000	.13	.11	.10	.11
.42	.18	Bankeno	10800	.19	.24	.18	.23
.12½	.08	Bankfield	3000	.08	.08	.08	.08
.45	.24	Bafnot	9150	.25	.25	.24	.24
.32	.06	Barva Lee	1000	.06	.06	.06	.06
.94	.34	Barvue	8950	.35	.36	.34	.34
.75	.60	Barymin .05	5000	.60	.60	.60	.60
.92	.40	Base Metals	32000	.50	.49	.43	.45
.47	.20	Baska	40650	22½	.25	.21	.24
1.50	.25	Bateman	12500	.29	.35	.25	.35
.11	.05	Beatrice	30000	.07	.07	.06	.06½
1.89	.30	B'tie-Duq.	65928	.45	.42	.30	.36
1.75	.60	Beaucage	4500	.65	.65	.60	.60
.40	.16	Beaver L'ge	9650	.18	.19	.18	.18
3.15	1.45	Belcher	349627	1.50	1.95	1.45	1.70
.88	.40	Bellechase	189700	.85	.85	.75	.84
.23	.10	Belle-Chib.	9500	.12	.12	.10	.11½
1.93	1.48	Belleterre .10	nil		B1.46	A1.75	1.46
2.75	1.06	Bethle'm	15500	1.25	1.35	1.06	1.35
.32	.14	Bevcon	4000	.15	.15	.14	.14
.12	.03	Bidgo-Yuk.	1500	.06	.06	.03½	.03½
2.65	1.15	Bicroft	13518	1.35	1.40	1.30	1.38
1.70	.50	Dé warr.	1050	.80	.70	.60	.70
.70	.12	Bidcop	7300	.13½	.15	.12	.13
1.12	.58	Black Bay	3800	.80	.75	.66	.75
.14	.07	Bonville	5200	.07	.08	.07	.07
.17	.07	Borduiac	9300	.07	.09½	.08	.08
.18	.03	Boreal	71020	.03	.03½	.03	.03
.38	.10	Bornite	9500	.11	.11	.10	.10
.18½	.07	Bouscadillac	14900	.09	.10	.08	.08
1.55	.40	Bouzan	47300	.44	.53	.40	.49
.15	.06	Boymar	148180	.08½	.15	.07½	.14
		Bralorne					
3.50	2.75	4.20 - 4.10	3210	5.00	5.20	4.90	5.00
.90	.25	Britund	19343	.28	.30	.25	.30
1.07	.60	Broulan Reef	26300	.67	.75	.63	.70
.16	.06	Brunhurst	4100	.06	.07½	.06½	.07½
.15	.05	Brunsman	5000	.07	.07	.06½	.06½
12.50	5.00	Brunswick	2010	5.50	5.30	5.10	5.20
.11½	.06½	Buffadison	7500	.07	.07	.06½	.06½
3.50	.67	Buff. Ank. .05	8100	1.05	1.05	.95	1.00
.21	.10½	Buff. Can.	66100	.12½	.13	.11¼	.12
.11½	.03½	Buff. R.L.	13000	.06	.07	.05½	.06
4.50	2.60	Bulolo $.25	2195	3.80	3.90	3.75	3.80
.15½	.09	Bunker Hill	12500	.09	.10½	.09	.09
.86	.21	Burchell	34800	.32	.35	.25	.32
1.30	.30	Burnt Hill	8200	.31	.31	.30	.30
.30	.18	Burrex	nil				.20
		C					
.45	.35	Cable	29141	.36	.40	.35	.40
.11½	.04	Calumet	6800	.06	.06½	.04	.04
12.50	5.80	Camp. Chib.	62057	6.50	7.75	5.80	7.50
		Camp. R.L.					
6.20	5.00	$.21¼ - .05	1815	5.25	5.95	5.80	5.60
		Canadian					
24½	.09½	Canadian Ast.	2000	.10	.11	.10	.11
3.70	1.05	Cdn. Dyno	28915	1.22	1.20	1.05	1.10
.45	.14	Cdn. Lith.	7000	.27	.27	.22	.22
.36	.25	Cdn. Mal.	1450	.29	.28	.25	.28
.40	.20½	Cdn. N. Inca	1900	.21½	.23	.20½	.22
.14	.07	Cdn. Thor.	14500	.07	.07	.07	.07
.82	.35	Canalask	5900	.41	.40	.35	.38
.69	.14	Canam	43627	.14	.18	.14	.18
.56	.23	Candore	15023	.32	.35	.30	.30
1.02	.30	Can-Erin	154273	.35	.42	.30	.41
8.60	2.35	Can-Met	52560	3.55	3.60	3.20	3.60
4.60	1.82	Do. warr.	21450	2.59	2.60	2.05	2.30
.85	.42	Canuba	2000	.13	.15	.14	.15
.10	.06	Canusa	nil		B.02	A.07	.07½
.54	.17	Capital	1000	.20	.23	.23	.23
.57	.13	Captain	7500	.18	.18	.16	.17
.73	.45	Cariboo	8600	.60	.62	.57	.60
.19	.07	Carnegie	4000	.08	.08½	.07	.08
.07½	.03	Cartier M.	7000	.04	.04	.03	.04
8.50	6.25	Cassiar Asb.	5770	6.75	7.00	6.85	7.00
3.35	3.00	Castle-Tre. .15	300	3.40	4.00	3.50	3.50
7.00	5.00	Cayzor	1600	5.80	5.80	5.00	5.25
.15	.05	Cen. Man.	1200	.06	.07	.03	.03
2.90	1.00	Cen. Pat.	125600	1.35	1.33	1.16	1.22
.15½	.09	Cen. Porc.	2500	.09	.09½	.09	.09½
.28	.07	Cheskirk	25300	.09	.08	.07	.07½
.36	.20½	Chesterville	4000	.21	.21½	.20½	.21½
4.25	.70	Chib. Jac.	297962	.90	1.12	.70	1.05
.60	.15	Chib. K'rand	12500	.16	.19	.15	.19
4.25	1.00	Chib. Min.	19000	1.20	1.29	1.00	1.15
1.32	.62	Chimo	14300	.84	.89	.73	.85
.40	.07	Chipman	3000	.09½	.08½	.07½	.09
3.65	2.45	Chromium	nil		B2.56	A3.10	3.20
.40	.12	Cleveland	7500	.15	.16	.14	.15
		Clix	nil				.12
7.00	2.25	Coast Cop.	500	2.90	2.25	2.25	2.25
.55	.30	Cobalt	5410	.35	.35	.30	.34
2.05	.75	Cochen'r .03	54875	1.83	2.05	1.71	1.99
.85	.20	Cody-Rcco	17000	.24	.25	.22	.22
.17	.10	Coin Lake	14870	.13½	.14½	.13	.12½
3.14	.47	Col'stream	369873	.61	.77	.47	.72
.58	.30	Coleman A.	nil		B.40		.35
.58	.25	Do. B	nil				.35
.16	.06	Colomac	1000	.06½	.07½	.07½	.07½
.47	.38	Cominga	17500	.40	.44	.38	.44
2.80	.82	Coniagas	11200	1.00	1.03	.92	1.02
.45	.34	Coniaurium	nil		B.35	A.43	.40
.44	.22	Conkey	2875	.23	.22	.22	.22
.21	.10	Conro	3000	.11	.12	.10	.12
.49½	.15	Con. B'keno.	12700	.17	.20	.18	.20
.23	.10	C. Beta	1833	.11	.10	.10	.10
.27	.09	C. Bi-Ore	5000	.16	.16	.14	.14
.55	.15	C. Callinan	7550	.22½	.24	.22	.23
.18	.07	C. C. Cad.	1060	.09	.07	.07	.07
28.37½	12.75	C. Denison	43622	18.37½	18.50	16.50	18.12½
17.50	8.50	Do. warr.	24405	11.37½	11.50	9.40	11.37½
2.50	2.50	C. Disc'y $.10	3230	2.70	2.70	2.60	2.70
2.05	1.00	C. Fenimore	6244	1.12	1.19	1.10	1.19
.50	.15	Do. warr.	nil		B.16	A.28	.15
.21	.07	C. Gillies	6300	.07½	.07½	.07	.07
.45	.15	C. Gold. Arr.	2000	.17½	.18	.17	.17
.00½	.00½	C. Goldfield	nil		B.01		.00½
.35	.12	C. Guayana	2000	.15	.16	.16	.16
1.38	.38	C. Hall'well	122650	.43	.60	.38	.53
2.75	1.90	C. Howey	10280	2.10	2.10	1.95	2.10
1.09	.25	C. Marbenor	44200	.36	.47	.31	.47
.25	.15	C. Marcus	2000	.22	.25	.24½	.25
.18	.09	C. Monpas	1000	.10	.09	.09	.09
.82	.22	C. Morrison	22100	.43	.45	.35	.43
.80	.37	C. Mosher	5000	.46	.45	.41	.45
.38	.16½	C. Negus	5000	.24½	.27	.23	.25
.18	.07	C. Nich.	1300	.09	.08	.08	.08
1.05	.50	C. Northland	3733	.65	.69	.61	.63
.27	.15	C. Perihcourt	nil		B.12	A.13	.15
.95	.53	C. Que. G.	1000	.75	.68	.68	.68
.22	.05½	C. Que. Y.	20000	.09	.09	.05½	.09
.30	.15	C. Red Pop.	6785	.15	.15	.15	.15
1.00	.26½	C. Regcourt	92500	.28	.33	.26	.28
.18½	.06½	C. San'rm	8800	.07½	.07	.06½	.06½
		Cons. Amalg.					
20.75	20.12½	.80 - .80	21312	21.62½	22.75	20.50	22.37½
3.50	.77	C. Sudbury	283215	.86	1.00	.78	.93
.40	.10½	C. Tung.	18200	.13½	.15	.10½	.13
3.35	2.00	Cont. Min.	10900	2.48	2.60	2.40	2.60
1.20	.65	Cont. Potash	4700	.80	.90	.80	.85
7.50	4.00	Conwest	5120	4.20	4.25	4.00	4.25
1.23	.24	Copper Corp.	30900	.28	.35	.24	.32
.88	.31	Coppercrest	nil				.38
.32	.07	Copper Man.	30292	.08	.10	.08	.10
8.20	1.61	Cop. Rand	57716	1.98	2.35	1.61	2.20
.14½	.05½	Cortez	nil				.06
1.09	.37	Coulee	18600	.44	.43	.37	.42
.15	.06	Cournor	nil		B.06½	A.08½	.08½
3.70	.80	Cewichan	23500	1.02	1.02	.80	.80
.15	.07	Crestaurum	1300	.07	.07	.07	.07
.38	.10	Croinor	2000	.12	.12	.12	.12
.42	.13	Crowpat	78050	.13	.18	.14	.17
		Cryderman	nil		B.06½	A.01	.00¾
.36	.09	Cusco	18700	.10	.10	.09	.10
		D, E, F					
.19	.09	Darlon	nil		B.13½	A.17	.15
.85	.22	Daering	2800	.29	.30	.22½	.22½
.47	.16	D'Aragon	13500	.20	.21	.17½	.18
.62	.35	Decoursey B.	9302	.50	.50	.45	.45
.20	.03½	Do. warr.	3000	.09	.07	.06	.06
.34	.15½	Deer Horn	500	.18	.16	.16	.16
.16	.07	D'Eldona	2000	.10	.10	.08	.08
1.15	.70	Delnite	5000	.84	.80	.75	.79
.31	.08	Diadem	12100	.09	.09	.08	.09
.18	.11	Dickstone C.	3000	.11	.11	.11	.11
		Dome					
14.25	12.00	.70 - 8.05	5080	12.62½	13.25	12.50	13.25
.37	.10	Donalda	20600	.13	.16	.12	.15
.10	.03	Doreen	1000	.04	.04	.04	.04
.73	.16	Duvan	36800	.19	.24	.19	.22½
.28	.13	Duvex	10400	.14	.15	.13	.15
.18	.06½	East Amph.	15000	.09	.08	.07½	.07½
1.47	1.10	East Mal. $.05	6400	1.32	1.42	1.32	1.42
		East Sull.					
3.25	2.15	4.15 - 4.10	6815	2.20	2.50	2.22	2.50
.65	.20	East. Asb.	3300	.25	.25	.16	.25
.50	.12½	East. Metals	20600	.15	.15	.12½	.15
4.10	1.65	East. Min.	119736	1.85	2.14	1.85	2.05
.57	.28	Elder	2700	.30½	.31	.30	.30½
.37	.13	Eldrich	4000	.18	.18	.15	.15
.59	.10½	El Pen-Rey	178900	.14	.14	.10½	.11½
.82	.13	El Sol	49104	.15	.16	.13	.14½
1.03	.35	Eureka	22500	.39	.45	.36	.43
.49½	.25	Explor. Ali.	18600	.30	.30	.26	.27½
.29½	.12	Fab. Met.	500	.13	.13	.13	.12
		Fabenbridge					
42.75	23.50	8.50 - .10	13882	27.75	28.50	25.50	27.50
.30	.14	Fano	128600	.24	.23	.18	.21
3.20	1.46	Faraday	17605	2.17	2.19	2.00	2.10
1.95	.85	Do. warr.	7110	1.16	1.19	1.00	1.15
.61	.12	Farw't Tung.	9000	.12	.12	.12	.12
1.32	.72	Fatima	112700	1.10	1.12	1.00	1.04
.24	.09	Federal	28000	.10	.11½	.09	.11½
.01	.00½	Flin Flon	1100	.00¾	.01¼	.01½	.01¼
10.00	8.00	Florida	71532	8.95	10.00	8.85	10.00
.14	.04	Fontana '45	nil		B.05	A.08	.05
.35	.30	Forty-Four	nil			A.35	.30
.21	.06½	Francoeur	6200	.09	.08½	.08	.08½
.30	.21	Friday Nick.	3000	.30	.30	.27	.29

Range 1957 High	Low	Company & Dividend ($)	Sales	Last Sept. 6	Week Ending Sept. 13 High	Low	Close or Latest
3.10	1.80	Frobisher	27285	1.95	2.09	1.80	1.92
81.00	70.00	Do. 4½ deb.	nil		B65.00	A.75.00	70.00
.22	.11	Fundy Bay	1900	.12	.14	.11	.14
		G					
.35	.06	Gaitwin	9000	.09	.10	.08	.09
1.20	.40	Galkeno	29620	.41	.44	.40½	.43
37.50	17.50	Gaspe Cop.	9023	21.50	21.00	17.50	18.50
18.87½	8.60	Geco	16565	10.75	10.50	8.60	9.35
.42	.19	Genex	6220	.20	.20	.18	.20
1.25	.50	Geo-Scient.	3500	.53	.59	.50	.56
.27	.10	Giant Mas. .06	1500	.11	.11	.10	.11
5.00	3.70	Giant Yk. $.20	3250	4.90	5.05	4.50	4.55
2.15	1.15	Glacier	33800	2.05	2.15	2.00	2.14
.70	.16	Glenn Ur.	19052	.23	.24	.20	.20
.28	.17	Goldale	2500	.17½	.18	.17	.17
.16	.07½	Gold Crest	9100	.09	.10	.08	.09
.15½	.06	Gold Eagle	4500	.06	.06½	.06	.06½
.54½	.31	Gold Lake	1000	.03	.03	.03	.03
.45	.22	Gold. Age	6950	.28½	.30	.25	.30
2.10	.74	Gold. Man.	14700	.80	.78	.74	.78
.34	.14	Goldfields	2400	.17	.17	.16	.16
.25	.11	Graham R.	10300	.12	.13	.11	.13
11.06	5.80	Granby 4.25	2000	8.35	8.00	5.80	5.90
.27½	.06½	Grandines	23650	.08	.10	.06	.09
5.60	1.80	Grandiac	7400	1.90	2.05	1.80	2.05
.17	.10	Grandview	nil		B.09		.10
.03	.02	Great Falls	nil		B.00½	A.02	.03
.87	.23	Greyhawk	110050		.39	.20	.35
.13	.06	Gui-Por Ur.	nil		B.04	A.10	.07
.48	.13½	Gulch	11000	.14	.15½	.14	.15
.14	.06	Gulf Lead	3500	.06½	.07	.06	.07
21.75	16.50	Gunnar G	21845	17.75	17.75	16.50	17.50
14.50	8.50	Do. warr.	8450	10.50	10.50	9.70	10.37½
.15	.06	Gwillim L.	2235	.07	.07	.06½	.06½
		H, I, J					
.21	.06	Haitian	nil		.08	.07	.08
3.00	1.70	Hallnor	nil		B1.80	A1.90	1.70
.09½	.02½	Hamil.	5200	.04	.04	1.01	.04
.18	.10	Hard Rock	6500	.11	.11	.10	.10
.62	.14	Harr. Min.	6500	.14	.16	.14½	.16
.27	.15	Hasaga	nil		B.15	A.15½	.15
.17	.09	H'd of Lakes	nil		B.08	A.09	.09
1.07	.31	Headway	21600	.38	.40	.31	.36
.18	.07	Heath	26500	.12	.11½	.09½	.10
.12½	.05	Heva	15000	.05½	.06	.05	.06
2.00	.82	High-Bell $.05 Hollinger	3890	1.60	1.46	1.40	1.46
26.00	22.25	.24 - $.26	13301	26.00	26.00	25.00	26.00
7.00	3.50	Hoyle	12540	3.70	4.30	3.60	4.15
		Hudson Bay					
86.00	49.00	12.75 - 11.15	10137	51.00	52.50	49.00	52.50
.85	.80½	Hudson R.	1600	.13	.10	.16	.10
.18	.18	Hugh-Pam	6500	.20	.24½	.22	.24½
.24	.07	Indian L.	23000	.08	.11½	.07	.10½
.90	.37	Inspiration	17750	.46	.43	.37	.38
.30	.14	Int. Ceramic	500	.20	.18	.16	.18
		Int. Nickel					
111.00	76.00	12.60 + 1.15	24676	80.00	82.25	76.00	80.87½
.41	.15	Int. Ranwick	1500	.16	.15	.15	.15
2.20	.69	Irish Cop.	13600	.86	1.05	.69	.86
5.20	2.30	Iron Bay	5375	2.75	2.75	2.45	2.75
.02	.01½	Island Lake	nil		B.00½	A.01½	.02
.84	.16	Iso Uran.	21900	.39	.39	.33	.35
.38	.19½	J. Walte $4.02	4300	.22	.23	.20	.20
1.35	.54	Jacobus	28400	1.00	1.10	.90	1.05
.13	.03	Jardun	1000	.03½	.04	.04	.04
.94	.27½	Jaye	25300	.29	.29	.24	.28
.65	.15	Jeanette	20997	.17	.20	.15	.20
.82	.13	Jellicoe	358360	.23	.26	.21	.24
.28	.10½	Joburke	15000	.14½	.16	.12½	.12½
.73	.28	Joliet Que.	11000	.30	.31	.26	.30
.25	.10	Jonsmith	23300	.11	.12	.10½	.11½
1.05	.49	R. J. Jowsey	112768	.60	.68	.51	.57
		K, L					
.18	.05	Kenville	13500	.07	.06½	.06	.06½
17.50	13.50	K.-Addison	4324	15.75	16.37½	15.75	16.12½
2.15	.49	Kerr Lake	67803	2.05	2.15	2.01	2.12
2.80	1.48	Kilembe	2000	1.55	1.70	1.48	1.70
.98	.40	Do. warr.	1800	.40	.45	.40	.40
.26	.07	Kirk. R. Bay	24420	.08	.09	.07	.07
1.34	.44	Kirk. Min.	93650	.54	.76	.55	.74
.22	.12	Kirk. Town	6700	.17½	.20	.16½	.16½
.23	.07	Kontiki Ld.	10090	.07	.08	.07	.07½
.03	.01½	Koot. Base	nil				.02
25.00	15.50	Labrador $.25	11825	18.50	18.50	15.50	17.25
1.60	.90	Lake Cinch	6100	1.20	1.30	1.24	1.28
1.85	.75	L. Dufault	7900	.85	.83	.75	.80
.18	.09	L. Lingman	1100	.10	.09	.09	.09
.29	.14	L. Osu	4500	.16	.17	.15	.17
8.00	3.75	L. Shore	1173	5.30	5.60	5.10	5.50
.19	.15	L. Wasa	2000	.17	.16	.16	.16
4.25	3.00	La Luz .10	900	3.50	3.50	3.25	3.40
2.85	2.10	Lamaque $.10	1702	2.50	2.35	2.10	2.30
1.53	.73	Leitch G. $.06	28500	1.12	1.12	1.00	1.07
.17	.07	Lencourt	10300	.09½	.08½	.07½	.07½
.42	.07	Lexindin	37000	.09½	.10	.07	.08
.13½	.03	Lingside	2400	.06	.05	.03	.03
.90	.34	Lithium	nil				.34
3.50	1.72	Little L.L.	13940	1.96	2.05	1.72	2.00
.13½	.03½	Lonmgsa	11000	.06½	.07	.03½	.07
1.70	.90	Lorado Ur.	45495	1.16	1.22	1.05	1.17
1.49	.60	Do. warr.	3750	.75	.77	.70	.70
.23	.10	Louvicourt	18000	.10	.13	.10	.13
.80	.15	Lyndhurst	30600	.18	.23	.15	.21
.11	.06½	Lynx Yk.	1000	.08½	.08½	.08½	.06½
		M					
2.20	1.72	Macassa	6590	2.75	2.16	2.11	2.16
.65	.30	MacDonald	6550	.40	.38	.38	.38
.18	.07	Macfie	49800	.07½	.09	.07	.08½
1.21	.95	Macleod	20700	1.08	1.16	1.11	1.13
		Madsen R.L.					
2.05	1.35	1.05 - 1.10	10000	1.53	1.60	1.50	1.60
.11½	.03	Magnet	3100	.06	.05½	.05½	.05½
.11	.04	Majortrans	16600	.04½	.04½	.04	.04½
1.85	1.25	Malartic $.05	49400	1.30	1.38	1.35	1.47
.34	.12½	Maneast Ur.	21500	.15½	.18	.15	.16
.62	.19	Maralgo	58200	.32	.35	.29	.33
.15	.07	Marcon	4500	.08	.08	.07	.07
2.10	.82	Marlmet	90120	.94	1.10	.82	1.03
.21	.11	Martin McN.	10700	.12	.14	.11½	.11½
		Massberyle	nil				.23
.60	.41	Matachewan	nil		B.40	A.55	.50
.89	.22	Maybrun	24000	.26	.25	.22	.23
		McIntyre	nil				
116.00	71.50	2.90 + 11.00	980	85.50	86.50	80.00	86.50
.30	.17	McK. R.L.	15150	.20	.21	.18	.18
.20	.08	McMarmac	10500	.12	.12	.10	.12
.53	.24	McWatters	25575	.34	.38	.31	.34
.45	.18	Mentor Exp.	12000	.20	.21	.19	.20
.55	.20	Mercedes	7000	.30	.29	.22	.24½
2.08	.85	Merrill Is.	71800	.91	1.15	.85	1.06
.24½	.10	Meta Ur.	8000	.12	.12	.11	.11½
1.92	.63	Mid-Chib.	37400	.75	.75	.63	.63
1.70	1.23	Midrim	38090	1.48	1.49	1.43	1.49
.63	.18	Midwest	4000	.21	.20	.18	.18
4.45	1.61	Milliken L.	75550	2.99	3.10	2.70	3.05
.17	.07	Mindamar	2578	.08	.10	.08	.08
21.25	11.37½	Mng. Corp. 1.50	3220	13.00	13.50	11.37½	12.75
.45	.17	Min. End.	30000	.18	.19½	.17	.17
.30	.11	Min. Ore	3200	.14	.12½	.12	.12½
.17	.07	Mogador	nil			A.18	.20
2.05	.75	Mogul	30000	.96	1.12	.89	1.00
1.75	.98	Mollyb'nite	1000	1.30	1.20	1.20	1.20
1.08	.61	Moneta .05	7700	.87	.81	.75	.77
1.03	.15	Monpre	600	.15	.20	.20	.20
2.65	1.20	Montgary	20550	1.36	1.33	1.20	1.30
1.16	.74	Multi-Min	23215	.84	.84	.75	.77
		N					
.84	.21	Nama Cr.	31400	.28	.35	.26½	.33
.63	.23	Nat. Ex.	43400	.32	.34	.30	.30
.28	.08	Nealon	1500	.09	.07	.06	.06
.46	.16	Nello Min.	3000	.17	.16½	.16	.16
.90	.30	Nesbitt L.	10800	.65	.45	.41	.42
.25	.08	N. Alger	7000	.08	.08	.08	.08
.67	.

DIVIDEND NOTICES

dividend notice

Notice is hereby given that a Dividend at the rate of Thirty-Two and One-Half Cents per fully paid share in the Capital Stock of the Bank has been declared for the quarter ending October 31st, 1957, and that an Extra Distribution at the rate of Twenty Cents per fully paid share in the Capital Stock of the Bank has been declared for the year ending October 31st, 1957, payable at the Head Office and Branches of the Bank on and after November 1st, 1957, to shareholders of record at the close of business on September 27th, 1957.

By Order of the Board
Toronto, Ontario, August 29, 1957

A. T. LAMBERT,
General Manager

THE TORONTO-DOMINION BANK
THE BANK THAT LOOKS AHEAD

THE CANADIAN BANK OF COMMERCE
DIVIDEND NO. 283

NOTICE is hereby given that a dividend at the rate of thirty-five cents per fully-paid share on the outstanding Capital Stock of this Bank has been declared for the quarter ending October 31, 1957, payable at the Bank and its branches on November 1, 1957, to shareholders of record at the close of business on September 30, 1957.

Subscribers to new shares are reminded that they will rank for this dividend only in the proportion that the amount paid upon such new shares at the record date of September 30, 1957, bears to the subscription price of $30.

By Order of the Board.

J. P. R. WADSWORTH,
General Manager.

Toronto, September 6, 1957.

CANADA FOILS LIMITED
DIVIDEND NOTICE

Notice is hereby given that the regular quarterly dividend on Class "A" Shares of Fifteen Cents (15c) per Share and a dividend on the Common Shares of Ten Cents (10c) per share will be paid on November 15th, 1957, to Shareholders of record at the close of business October 30th, 1957.

By Order of the Board.

W. A. RENNIE,
Secretary.

Toronto, Ontario,
September 12th, 1957.

N. SLATER COMPANY LIMITED
HAMILTON-CANADA

DIVIDEND NOTICE

NOTICE IS HEREBY GIVEN that a dividend of .53c per share has been declared on the outstanding Preferred Stock of the Company, payable October 14th, 1957, to shareholders of record at the close of business on September 27th, 1957.

NOTICE IS HEREBY GIVEN, ALSO, that a quarterly dividend of .25c per share has been declared on the outstanding Common Shares of the Company, payable November 1st, 1957, to shareholders of record at the close of business on October 11th, 1957.

By Order of the Board.

E. GARSIDE,
Secretary.

THE SHERWIN-WILLIAMS COMPANY OF CANADA, LIMITED

Notice is hereby given that the one hundred and eighty-fifth quarterly dividend of one and three-quarters per cent (1¾%) being at the rate of seven per cent (7%) per annum, for the quarter ending August 31, 1957, on the Preferred Stock of the Company, has been declared payable October 1, 1957, to shareholders of record on the 10th day of September, 1957.

By Order of the Board.

P. W. HOLLINGWORTH,
Vice-President &
Secretary-Treasurer.

Montreal, Quebec,
September 4, 1957.

COMMAND OILS LIMITED

Notice is hereby given that a dividend of 5c per share has been declared on the outstanding no par value shares of the Company, payable on or after September 30, 1957, to shareholders of record at the close of business September 19, 1957. The transfer books of the Company will not be closed.

By Order of the Board.

G. A. PREST,
Secretary.

September 5, 1957.

QUÉBEC-TÉLÉPHONE
RIMOUSKI, P.Q.
DIVIDEND NOTICE

The following dividends have been declared, payable October 1, 1957, to shareholders of record at the close of business, on September 14, 1957:

PREFERRED STOCK

A regular quarterly dividend of 25 cents per share on the 5% Cumulative Sinking Fund Redeemable Preferred Shares.

CLASS "A" STOCK

A semi-annual dividend of 37 cents per share.

COMMON STOCK

A dividend of 40 cents per common share.

By Order of the Board.

P. E. GAGNON,
Secretary.

Rimouski, P.Q.,
September 11, 1957.

SUPERCRETE LTD.,
ST. BONIFACE, MAN.
NOTICE OF DIVIDEND

Notice is hereby given that the Board of Directors has declared a dividend of eight and one quarter cents ($0.08¼) per share on the Common Capital stock of the company in respect of which dividends have not been waived, payable October 1, 1957, to shareholders of record at the close of business September 13, 1957.

Transfer books will not be closed.

F. R. DUNSMORE, C.A.,
Secretary-Treasurer.

Bobbing-Barticraft Limited
Notice of Preferred Stock Dividend No. 171

A dividend of one and three-quarters per cent (1¾%) has been declared on the Preferred Stock of this Company, for quarter ending September 30th, 1957.

The above dividend is payable on the 1st day of November, 1957, to shareholders of record at the close of business the 30th day of September, 1957.

By Order of the Board.

D. F. POLLOCK,
Secretary-Treasurer.

INLAND NATURAL GAS CO. LTD.
PREFERRED DIVIDEND NO. 4

Notice is hereby given that the Board of Directors of the Company has declared a dividend of Twenty-five cents (25c) per share on the 5% Cumulative Redeemable Preference Shares of the Company for the three months' period ending October 15, 1957, payable October 15, 1957 to shareholders of record at the close of business on Friday, the 27th day of September, 1957.

By Order of the Board.

E. B. BULL,
Secretary.

Vancouver, B.C.
September 5, 1957

SUPERTEST
PETROLEUM CORPORATION, LIMITED
NOTICE OF DIVIDEND

NOTICE is hereby given that a quarterly dividend of $1.25 per share upon the outstanding 5% cumulative redeemable sinking fund preference shares of the par value of $100 each in the capital stock of the Company has been declared payable on October 15th, 1957, to shareholders of record at the close of business September 20th, 1957, such dividend being at the rate of 5% per annum for the period from July 15th, 1957, to October 15th, 1957.

BY ORDER OF THE BOARD

R. W. MITCHELL,
Secretary

LONDON, Ontario,
September 9th, 1957.

UNIVERSAL COOLER COMPANY LIMITED
Fifth Regular Quarterly Dividend

Notice is hereby given that the Fifth regular quarterly dividend for the quarter ending September 30, 1957, of 1½% on the outstanding 6% Cumulative Redeemable Class A Preference Shares and of 12½c per share on the outstanding 50c Cumulative Convertible Class B Preference Shares of the company has been declared payable October 1, 1957, to shareholders of record at the close of business on the 14th day of September, 1957.

By Order of the Board.

A. D. HALL,
Secretary-Treasurer.

Brantford, Ontario,
July 17, 1957.

DOMINION GLASS COMPANY LIMITED

Notice is hereby given that a dividend of one and three-quarters percent (1¾%) has been declared on the PREFERRED STOCK of the Company for the quarter ending the 30th day of September 1957.

Notice is also hereby given that a dividend of Fifty Cents (50 Cents) per share has been declared on the COMMON STOCK of the Company for the quarter ending the 30th day of September 1957.

The above dividends will be paid on Tuesday, the 15th day of October 1957, to shareholders of record at the close of business Friday, the 27th day of September 1957.

By Order of the Board.

T. B. KING,
Secretary.

Montreal, 28th August, 1957.

NOTICE

To the Holders of Share Certificates of

CEDAR OILS LIMITED

Pursuant to a recent capital re-organization of the Company, new share certificates are now available. Please present your presently held share certificates to the office of the Guaranty Trust Company of Canada, 311-8th Avenue West, Calgary, Alberta (the registrar and transfer agent of the Company) for cancellation, and receive a new share certificate representing the number of shares now owned by you as a result of the capital re-organization.

Board of Directors,
CEDAR OILS LIMITED

Market Bid and Ask Quotations

	Bid	Ask		Bid	Ask		Bid	Ask
Abitibi	27½	27¾	xA Nep	101	110	Conf D	105	110
Do p	22½	23½	xAmur	440	480	xConla	92	95
Ac-Atl	8¼	9¼	xAnac	78	80	xOntasr	30	40
Do A	182	184	xAnalog	240	250	xCKer	20½	22
Do p	80	88	xAnch	17	18	xConro	11	11½
xAcad U	8	8½	Ang-Am	11¾	12¼	xC Ast	9	10
xAcme	16½	17¼	Ang-C Tel	38		xC Bak	6¾	7¼
xAconic	153	154	A Pip p	47	49½	xC Bell	17	18
xAco v	105	107	Ang Hi	10	10¼	xC B G	13	14
Admi	9¼	9¾	xAng R	43	45	xC Calf	24	24½
xAdvoc	475	500	Ansil	26	28	xC C C	8	10
Ag-S	8¼	8¾	Anthes	23	24	xC Cord	19	
Do p	9	9	xApex	5¼	6	C Den	17½	17¾
xAjax	63	68	xArcad	123	127	Do w	10½	11
xAkaite	29	30	Do w	56	60	xC Disc	260	270
xAlba	9	10	xArcon	29	34	xC Dra	46	47
xAlta D	145	150	xArea	80	92	xC E Cr	35½	38
Algom	18¾	19	Argus	17¾	17¾	xC Fen	112	115
Alg deb	93½	94½	xArjon	9½	11	Do B w	16	30
Do w	10½	10¾	Ash B	10½	12	C Fire	6	7
Algma	30¼	30½	xAsh T	200	225	xC Gill	9	11
Alumi	37½	37¾	Do A		90	xCG Ar	17	
Do 1 p	21	21½	Do B	8¼	8½	C Guy	12	16
Do 2 p	44½	45	A Art	8¼	8½	xC Hall	50	52
xA-Lar	14	15	Do d	93½	95½	xC Harv	260	270
A Rar E	145	150	Do wts	860	875	xC Hay	200	210
xAm L	27	28	Atl A	61	61½	xC Hol	350	400
						xC Hud	40	47
						xC Ind	25	29
						xC Ir Co	14	
						xC Iron	6¾	7
						xCG Ar	17	
						xC Guy	12	16
						xC Hall	50	52
						xC Hay	200	210
						xC Mnfg	38	39½
						xC Mres	26¼	27
						xC M M	400	410
						C M S	21½	21¾
						xC Morr	42	43
						xC Mos	44	50
						xC Neg	28	29
						xC Nich	7	7¼
						xC Nor	60	64
						xC Pk	8	9
						xC Pow	12	13
						Do A	325	450
						Do B	150	350
						xC Que	67	75
						xC Red P	15	16
						xC Reg	28	30
						xC Sam	61	9
						xC Sud	89	91
						xC Tung	13	13½
						xC W P	625	650
						C Gas	32½	33½
						C G A	101½	101¾
						Can C	42	42½
						C Glass	25	25½
						xCnwst	465	425
						Can Cl	500	500
						xC Coc	25	30
						xCop-M	9	11
						xCprod	200	205
						Corb vt	15½	16
						Do B	15½	15¾
						Cmos	10¼	11½
						xCoulee	42	43
						xCoutu	7	9
						xCowie	90	100
						xCraig	275	325
						xCree O	490	520
						Do w	265	275
						xCrol	7	8
						xCrathk	225	250
						Do p	30	30½
						Do w	125	160
						xCroi	12	13
						Cr Cork	50	52
						Cr Tr	19	20
						Cr Zell	45	46½
						xCrowp	15	16½
						Cro N	16	19
						xCusco	9¼	10
						xDaer	25	28
						Dalex p	88	
						xD'Ara	18½	20
						Day A	7¼	8
						Do B	250	275
						xDe C	50	51
						Do w	5¼	7
						xDef H	16	17
						xD'Eid	7 9½	10
						xDelte	75	82
						xDev P	166	170
						xDiadm	8	8½
						D Seag	25½	28½
						D Dep	980	1010
						Dome	13	13¾
						D Ang	451	
						Do p	95	
						D Coal p	8	8½
						D Brge	23½	24
						D Cors C	14	
						D Dat	7	
						Do p	17	18
						D Elec	7	8
						D Fab	10	11
						Do 2 p	20	
						D Fdry	23½	23½
						Do p	97	97½
						D Ins	166	
						D Mag	13¾	14
						D Scot	20	24½
						Do p		45½
						D St o	25½	25¾
						D St DR	25¾	
						D Strs	46	46½
						D Tar	9½	10
						Do p	16½	17½
						D Tex	7¼	7¾
						Do p	118	
						xD W I	50	75
						xDonal	12	14
						D Rop B	13½	13¾
						xD M	80	85
						Donoh Br	10¾	
						Dow	30	30¾
						xDuvan	19	21
						xDuvex	15	17
						xE Am	7½	8
						xE Mal	135	156
						xE Sull	240	250
						xE Asb	25	30
						xE Met	14	15
						xE Min	191	195
						East St	150	175
						Easy	7½	10
						Do p	18½	19½
						Econ I	35	37½
						Eddy	42	46
						Do A	42½	44½
						Ed Ma	25	26
						xElder	30½	35
						xEldr	16	19
						xElectr C	96	
						Electrolux	92	10½
						xEl P-R	12	12½
						xEl Sol	14	14½
						Em Life	48	60
						Eq Life	40	45
						Erie A	6	7
						Do B	250	275
						Estbks p	18½	19½
						xEureka	40	41
						xExcls	60	69
						xEx All	26	28
						Falcon	27½	28
						Fam Pla	16½	18½
						Fan F	18	18½
						xFrdy	205	210
						Do w	105	115
						xFargo	755	765
						xFweg	12½	14½
						Fed Flr		49
						Fed Gr	25½	26
						Do p	25½	26½
						xF Kirk	9	10
						xFibre	300	400
						Do p		350
						Fitting	5½	
						Do A	8½	10
						Fl F p	15	
						xFleet	63	65
						xFla C	970	985
						Ford US	50½	51½
						Do A	81½	82½
						Do B	79	100
						Found	19½	20
						xFrnc	8	9
						Fraser	23¼	23½
						Frei p		90
						xFrbshr	180	185
						Do db	77	75
						Frue	7	7½
						xGaitw	8	10
						Gilkno	42	44
						Gatin	27½	27¾
						Do 5%p	95	97
						Do 5½%	102	104½
						Geco	905	920
						G Bak	52	53
						G Dyn	52½	53½
						G Elec	61½	61¾
						GMC	39½	40
						xGen P	500	550
						Do A	430	450
						GP M A		33
						GSW	5½	6
						Do p	83½	97
						xGenex	15	20
						xGeo Sc	50	51
						xGt Mas	10½	13
						xGiant	415	430
						xGlacier	216	218
						xGlenn	21	22
						xGldale	17½	20
						xGlder	9	10
						xGold E	7	7½
						xGold M	65	70
						xGldcr	7	7½
						xGF Ur	14½	18
						Gdy	160	175
						Do p	43½	44½
						G Mac A	6½	7
						Do B	6	6½
						Gtn A	13½	13½
						xG Bous	10	11½
						Granby	600	
						Gr Tov	36½	49
						xGdines	8½	9
						xGduc	190	195
						GL P	36½	36½
						GL Pow	21	22½
						Do p	22	25
						GN G	7½	8
						Do p		29½
						Do 280p	48	48
						Do w	420	450
						Gr Pins	27	28
						GW C A		61
						Do B	51	53
						Gr W		191
						xGrning	450	475
						xGryhk	32	33
						Gridoil	700	740
						Guar T	20½	29½
						xGulch	14	15
						xGulf L	7	8
						Gunn	17¾	17½
						Do w	975	990
						xGurney	250	350
						Do p		10
						xGwilm	6	6½
						Gyp	27½	28
						Hahn	14½	21
						Do A	13½	14
						xHallnr	180	225
						H. Cot	14	15
						Do p	77	80
						H Carn	61	62
						xHd Rck	10	11
						xHar-M	14	16
						Hartz A	7¼	7¾
						xHasaga	15	17
						xH of L	7	8½
						xHdway	35	37
						xHeath	9¼	10
						xHees	350	500
						Hendsh	5½	6½
						Do p		90
Conduit	9	10	xHeva	54	6			

DIVIDEND NOTICES

LOWER ST. LAWRENCE POWER COMPANY
Head Office, Rimouski, P.Q., Canada

Dividend Notice

The Board of Directors has declared the following dividends:

Common Stock

A dividend of 40 cents per share, payable October 1, 1957, to shareholders of record at the close of business, on September 14, 1957.

4½% Preferred Stock

A regular quarterly dividend of 22½ cents per share, payable November 1, 1957, to shareholders of record at the close of business, on October 15, 1957.

By order of the Board.

P. E. GAGNON,
Secretary.

RIMOUSKI, P.Q.
September 11, 1957.

DOMINION STEEL AND COAL CORPORATION, LTD.
DIVIDEND NOTICE

Notice is hereby given that a regular quarterly dividend of twenty-five cents (25c) per share on the outstanding Ordinary shares without nominal or par value of the capital stock of this Corporation has been declared for the quarterly period ending September 30, 1957. Such dividend to be payable on October 30, 1957, to shareholders of record at the close of business on October 11, 1957.

By Order of the Board,

G. C. BROADBENT,
Vice-President and
Secretary and Treasurer.

Montreal, P.Q.,
September 11, 1957.

THE EASTERN TRUST COMPANY
226th Consecutive Dividend

Notice is hereby given that a quarterly dividend of 2½% (25 cents per share) has been declared on the paid-up Capital Stock of the Company (par value $10.00 per share), for the quarter ending September 30th, payable October 1st, 1957, to shareholders of record as at the close of business September 20th.

Dated at Halifax this 13th day of September, 1957.

By order of the Board

E. G. DEWLING,
Secretary

SELLERS ACCEPTANCE CORPORATION LIMITED
PREFERENCE DIVIDEND NO. 3

NOTICE IS HEREBY GIVEN that the regular half yearly dividend for the half year ending the 31st day of July, 1957 of thirty cents (.30) upon the outstanding preference shares of the Company, has been declared payable on the 30th day of September, 1957 to holders of record at the close of business on the 31st day of July, 1957.

COMMON DIVIDEND NO. 1

The board of directors of Sellers Acceptance Corporation Limited at a meeting held on the 6th day of September, 1957 declared a dividend of six cents (.06) per share on the outstanding common shares of the Company payable on the 30th day of September, 1957 to shareholders of record at the close of business on the 16th day of September, 1957.

By Order of the Board.

HARVEY K. PATTERSON,
Secretary.

Dated at Hamilton the 9th day of September, 1957.

THE BOWATER PAPER CORPORATION LIMITED
Notice of Interim Dividend

The Board of Directors at a meeting held September 6, 1957, declared an interim dividend in respect of the year ending December 31, 1957, of 4½ per cent on the Ordinary Stock equivalent to 12 cents per £1 stock unit. The dividend will be paid, less British income tax, on October 28, 1957, to stockholders of record at the close of business on September 14, 1957.

ROBERT KNIGHT,
Secretary

The Bowater Organization

Canada • Great Britain • United States of America • Australia • South Africa • Republic of Ireland • Norway • Sweden

	Bid	Ask		Bid	Ask		Bid	Ask
xHigh-B	132	140	Mt I Tr	34½	35			
xHighw	32	34	Moore	60½	61¼			
H D	42	45	Do A	920				
H-Ad	6¾	7¼	Do B	1416				
xHold A	190	200	Morg & C	18	22			
Do B		150	Do 42½p	88	90			
Holling	25½	25¾	xMulti	75	80			
Ho O A	20½	20¾	xNama	28	30			
Do B	20¼	20½	Nat Dr	101	102			
Holt Ren	51		Do p	101	102			
Do 1st p	92½	93	xN Exp	32	32			
H Smit	27½	27¾	N Groc	20	22½			
Do p	40	43	Do p	25½	27			
xHoyle	425	430	xN Ho A	395	500			
Hud B	52½	54	Do B	375	400			
xH-Bun	22	25	N Lead	106½	107			
Hu O A	12½	14	xN Pet	340	355			
Do B	12½	..	N St C	23½	231			
Do p	25	..	Nat Tr	38	39½			
xHum Q	116	120	xNealon	7½	8			
Hur Er	32	32½	xNello	16	22			
Imp B	48½	49	Neon	13½	15			
I Flo	..	27	xNesL	40	43			
I In A	19	111	xN Alg	8½	9			
Imp L	50	56	xN Atb	30	34			
Imp O	460	465	xN Bld	8	9			
I Tob	111	112	xN Brls	38½	41			
I T p	51	54	xN B D	231	234			
xInd L	9	10½	xN Cal	22	24			
I Acc	26½	27½	xN Chb	190	195			
Do 450 p	25½	26½	xN Conc	204	27			
Do 225p	43	45	xN Cont	47	50			
Do 275p	49	50	xN Dav	20	22			
Do wts	850	900	xN Dei	79	80			
Inger A	8	8	xN Dick	171	174			
xInglis	340	345	xN For	14½	14½			
Do B p	101	104	xN G Ex	205	213			
Inl C p	16½	16¾	xN Gvue	8	8½			
In G	8	8¼	xN Harri	16	16			
Do w	425	450	xN High	14	15			
Do p	15	15	xN Hos	15	18			
Inspir	40	41	xN Jet	8	8½			
Int Bro	..	12	xN Kel	9	9½			
Do p	..	21	xN Iund	23	24			
I Mil p	65	70	xN Man	30	32			
I Nickel	80½	81	xN Min	13	14			
I Pete	46¼	46½	xN Myla	11	13			
xInl Ran	14	15	xN Nic	6	7			
Intprov	11	12	xN Rou	8	9			
IPL B w	45	200	xN Sen	6	6¼			
IPL	45½	45¾	xN Sup	182	190			
Inv Syn	13¼	14¼	xN Tako	16	18			
Do A	11¾	12	xN Rim	210	218			
xIrish	79	83	xNipis	156	166			
xIrn B	265	270	xNisto	7	7½			
xIstpe	140	145	xNor-Ac	14	14½			
xJ Wal	19	21	xNoran	41	41¼			
xJacob	95	99	xNogld	10	11			
Jamaic P	23	23	xNorlac	6	7			
Do P S	105	110	xNorma	306	315			
xJaye	38	40	xNorpax	65	67			
xJean	19	20	xNorsyn	17	18			
xJellico	24½	25	xNorcal	26	30			
xJburk	15	16	xNCO	390	415			
Jons-M	40½	40¾	Do w	180	210			
xJoliet	27	30	Do p	32	33			
xJonsm	10½	12	xN Rk	105	109			
xJows	51	57	xNthsp	560	570			
xJump P	37	38	Do A w	360	370			
xJupit	305	310	N Star	13¾	14			
Kelvin	6	6	Do A	14½	17			
xKenvil	6½	7	Do p	36½	37			
Ker Ad	16	16½	Do w	625	640			
xKerr L	207	208	Do w56	370	400			
xKil	150	170	xN Can	161	163			
Do w	50	55	NQ P	221	22½			
xKirk H	7	8	Do 1 p	..	..			
xKirk M	67	70	xNor Ph	300	345			
xKirk T	16½	17	NW U p	73	76			
Labatt	18½	19	xNthld	52	55			
Labdor	16½	17¼	xNorval	13	14½			
Lkld Gas	107	108	xNudul	21	25			
Lfge A	9	9	Oak W	8	10			
xL Cin	125	130	xOhask	6	7			
xL Duf	50	52	xOBrien	60	65			
xL Ling	9	10	Off Sp	16	17			
xL Osu	17	..	xOgama	6	8			
xL Shor	540	550	xOka R	17	19			
xL Wat	13½	17½	xOkan	200	204			
L Wds p	122	140	xOLear	20½	21½			
xLaL	350	370	xOB S	50	50			
xLamq	225	..	xOJC	165	170			
L Sec	182	194	Do p	84	84			
Laur A	111	..	Do B p	74	8			
Do p	171	18	Do w	51	57			
L J A	19½	19½	O Lodge	23	24½			
Do B	21½	22	O Sti	22	..			
xLeitch	106	110	Opem	850	870			
xLenc	7	8¼	xOr Cr	255	275			
Lewis Bro	8¼	9	xOrena	17	18			
xLexndn	8	9	xOrms	30	33			
xLib P	180	183	xOsisk	31	32½			
xLLL	181	186	Pce Expl	21	23			
Lob	81½	..	Pac P	26½	27			
Do 1 p	26½	27	Pge Her	111	113			
Do 2 p	47	53	xPmour	40	42			
Do N A	23½	24	xP Nor W	30	35			
Do N B	20½	21	xParam	7	7¼			
Lob p	40½	41	xParbec	5	6			
Loews	124	..	xPardee	69	72			
xLmega	6	6½	xParker	475	475			
xL Hos	200	325	xPater	62	65			
Do A	6¼	6	Patno M	800	820			
xLIP	14	14½	xPymst	19½	20			
xLorado	110	115	Peerless	32	44			
Do w	71	73	Pbina ne	10¾	11¼			
xLouvi	10	12	Do p	43	44			
L St L	15	18½	Pmmns	25	25			
Lown	22	22½	Do p	100	112			
xLyndh	17	18	PCJI	16½	20			
xLynx	7	7½	Do p	91	95			
xMacas	220	229	xPmo p	285	288			
xMacdon	31	38	xPerron	37	38			
xMacfie	8	9	xPeruv	110	120			
MacKin St	9½	10	xPetrol	66	70			
Do pfd	96	..	xPhill	190	192			
xMacL	114	118	Ph Eng	39	40			
MacM A	24½	33	xPck Cr	108	110			
Do B	26	26½	xPion	130	140			
xMadsn	160	175	xPit-Or	7¼	9			
xMages	94½	100	Placer	930	975			
xMagnt	5	6	xPonder	60	65			
Mailmn	..	23	Pow R	36¼	37			
Do p	..	92¼	xP Rou	47	59			
Do cum	25	28	Pow Cp	54½	55¼			
xMajtrn	4	5	xPrairie	370	380			
xMalart	143	145	xPr Brd	7	9			
Malnor	19	21	Prem T	85½	95			
M Su p	..	85	Pre Ir Cr	61	62			
M L G	21	..	xPres El	100	105			
M L M	7¼	7¾	xPrest	715	725			
Do p	83	88	Price Br	9	46½			
xMralgo	32	33	xPrnto	575	590			
xMarcn	7½	8½	xPto w	191	200			
xMargld	19	21	xPros A	113	124			
xMari	96	100	Provin	11	121			
xMrtin	11	11½	xProv G	320	325			
Mass-H	6¼	6¾	xPrdex	6½	8			
Do p	78	78	xQ Acot	16½	20			
xMatat	40	45	xQ Chib	79	80			
Maxw	..	5¾	xQ Cop	52	55			
xMaybrn	23	25	xQ Lab	9	9½			
McB p	11¼	11¾	xQ Lith	675	685			
McC A	..	28	xQ Man	31	40			
Do B	22	24	xQ Met	151	155			
MCoil	65	66½	Que Pwr	28½	30			
Do p	87	92½	xQunst	20	22			
McInt	84	85½	Quem	10	10½			
xMcKen	19	21	Quin A	9¾	10¼			
xMent	16½	19	Quin	300	..			

MEMO From Elder

The Lost Art of Predicting Market Trends

The money that can be made in the Canadian market through the analysis and purchase of good stocks is eclipsed completely by the profits that can be amassed by the trader who not only knows good stocks but knows also how to trade in and out of them in step with the incessant rises and falls of the general market.

We've made a specialty of catching the tops and bottoms of these cycles in the current series of weekly Elder Letters — and we've correctly called every turn during a period which has been one of the most difficult in years. Two weeks ago, in a rallying market, we predicted an early reversal tantamount to a selling climax. We used Opemiska as an example, stating that at $8 it was a good speculative buy for the longer haul — but that traders should await a chance to buy near $7.50 during the anticipated selling climax. Four trading days later the stock rolled off to $7.30, and trading clients moved in their bids.

Last week as the market started to rally we predicted that the upward drive would arouse more and in disappointment — stressing the fact that the masters of the monetary system hadn't quite finished their contemplated "secondary deflation" and that another epidemic of doubt could be expected. We [illegible] undisciplined buyers began moving [illegible] Opemiska at $9 or better" — you can fulfill your function as a trader and make your profits as rates available to satisfy the demand" — and today the stock rallied to $9.10, and Elder clients who had bought on [illegible] or below were out with their profits.

We've been going through these exercises consistently in a cross section of base metals and uraniums. The week before the Opemiska trade, for example, we rolled up fast trading gains totalling $3.90 a share in Algom, Pronto and Stanleigh — and then said to get out of uraniums temporarily for trading purposes. We've even differentiated successfully between various mining groups and how they will act under similar general market conditions. We said Coldstream and Copper Rand would be trading buys during the last selling climax—but that the uraniums, which we had just sold, would not be. This was because we had anticipated and predicted a reversal in copper prices when the metal bumped 24 cents on foreign markets. These two coppers gained 30 to 40 percent during this last rally while the uraniums showed little change. And again we said "sell."

In this kind of trading, however, it is important not to act unless you know you can be right. We recommended Advocate, for example, at $4 — and when it rose to $5 the thinness of its market suggested it would be unwise to trade the position despite the possibility of a temporary fillback. We advised holding — and after the briefest of reactions the stock has driven back again through $5 to $5.25 as we write.

If you lack the time to study and detect market turns with this degree of accuracy, then bear in mind that we're in business to serve you. Even clients who have been accustomed to turning to other types of specialists for corporate and statistical information are finding that The Elder Letter neatly supplies the added element of correct timing that permits them to make money with good stocks.

We charge $35 a year for our services — or $3 for one six-week trial subscription.

J. C. ELDER & CO.
SECURITIES ADVISER
SUITE 1323, 67 YONGE ST.
Toronto 1, Canada
Telephone: EMpire 6-6066

ROYALITE OIL CO. in August converted 200 preferred shares into 400 common shares, reducing number of preferred shares outstanding to 164,053 and increasing number of common shares to 2,952,342.

STANLEIGH URANIUM MINING CORP. in August issued 300 additional shares under exercise of warrants, bringing number of shares outstanding to 3,259,795.

U.S. Drive for Tariff Rise Aimed at Canadian Minerals

Special Correspondence

WASHINGTON—Canada's mineral industry "ain't seen nothin' yet."

That's the warning being given in Washington by observers watching closely the demands of the U. S. mining industry for protection against imports.

Canada came out unscathed this past session of Congress when a powerful drive collapsed before it could successfully push through new, high tariff rates on lead and zinc imports.

Canada may not be so lucky in the coming months.

Imports of copper, lead and zinc, tungsten, nickel, and aluminum all are coming up for criticism.

At Salt Lake City recently, the American Mining Institute blamed most of the woes of the domestic industry upon imports.

"It is the responsibility of our government to see that foreign minerals and the product fabricated from them are not permitted to flow unrestricted across our borders to stifle home industry and engender an economic revolution," according to the Institute.

The mining state congressmen from the West always have hollered about more import protection.

Up until this year, however, the hollering was mainly ignored by the administration which felt the industry's troubles were not imports.

With Felix Wormser of **National Lead** as assistant secretary of the interior, however, the White House cocked a friendly nod to the industry this year.

In a basic departure from the Eisenhower freer trade philosophy, the White House okayed a Wormser-planned scheme for higher tariff rates on lead and zinc imports.

The importance of this move went far beyond the minerals involved and signaled a weakening of White House resistance to the demands from the mineral industry.

Although Eisenhower changed his mind later on, the domestic industry still thinks the administration has shifted and will listen more carefully to their complaints about imports.

This has given its supporters new heart and they are now building up pressure for a wide attack in the coming months.

Tungsten Investigation

The U. S. Tariff Commission already has launched an investigation of imports of tungsten ores and concentrates.

Canada ships in about $6-million worth in an average recent year, almost all of it from British Columbia, mined by Canadian Exploration, a subsidiary of Placer Development.

The investigation was begun via a congressional resolution pushed through by Nevada Senator George Malone, a long-winded, long-time foe of mineral imports.

A. J. O'Connor, general manager of the **Consolidated Coppermines Corp.**, blames the recent decreases in copper prices on imports.

He says the U. S. copper industry is organizing a campaign to get higher tariff rates.

The plan is to ask that a 2c lb. tax on copper imports be imposed whenever the price of the foreign metal drops to 27c a pound.

Senator Robertson of Virginia says he's unhappy about major U. S. aluminum companies asking the government to buy millions of pounds of aluminum at high rates while they are importing cheaper Canadian aluminum.

He says it's unfortunate that the U. S. stockpiling of aluminum has encouraged heavy expansion of production in Canada.

None of the Canadian metal goes into the stockpile, but the **Aluminum Co. of Canada** would not have as large sales to its U. S. customers if the U. S. firms were not putting a lot of their aluminum into the stockpiles.

On nickel, Canada supplies most of the U. S. needs, but the number one supplier, **International Nickel Co.**, has been thrown a round-house swing by the U. S. attorney general and assorted Washington congressmen.

The attorney-general says Inco follows "anti-competitive" policies and indicates he'd like to take an anti-trust action against Inco if he could.

Rep. Lee Metcalf of Montana says the Canadian firm is a "ruthless monopoly."

War-Whoops on the Trail

With western congressmen war-whooping along the protectionist trail, they're getting a measure of support from the government.

A Long Range Minerals Program came down from the administration in the last session based, in part, upon a cabinet committee report on minerals policy. Although it was criticized by the domestic industry for not going far enough—some said it didn't go anywhere at all—it still represents an administrative giving away to the industry.

There is much sentiment in the interior department for higher tariff rates as demanded by the domestic industry.

Its influence is weakened by general opposition by the state department which almost always opposes any upping of tariffs.

"But," says one Interior official, "high tariffs on mineral imports are the only solution if we really want to help the domestic industry."

So far as the domestic industry is concerned, it's a case of "you name it, and we want protection against it."

Here's an indication of the importance of the U. S. to Canada's mineral industry and vice versa, from statistics in the U. S. Long Range Minerals Program.

Canada provides:

- 98% of U. S. aluminum imports.
- — Large but unspecified percentage of U. S. asbestos imports.
- 52% of U. S. barite imports.
- 20% of U. S. cadmium imports.
- 9% of U. S. arsenic imports.
- 18% of the U. S. copper imports.
- 100% of the feldspar imports.
- — Large but unspecified percentage of the U. S. gold imports.
- 85% of the U. S. gypsum imports.
- 58% of the U. S. ilmenite imports.
- 43% of the U. S. iron ore imports.
- 93% of the U. S. iron and steel scrap imports.
- 13.5% of the U. S. lead imports.
- 99% of the U. S. lime imports.
- — Most of the U. S. lithium imports.
- 52% of the U. S. magnesium imports.
- 10% of the U. S. mercury imports.
- 81% of the U. S. nickel imports.
- 35% of the U. S. platinum group metals imports.
- — Large percentage of the U. S. radium imports.
- 95% of the U. S. salt imports.
- 95% of the U. S. sand and gravel imports.
- 78% of the U. S. selenium imports.
- 60% of the U. S. imports of natural sodium sulfate.
- 87% of the U. S. sulphur imports.
- 13% of the U. S. imports of talc, soapstone and pyrophyllite.
- 9% of the U. S. tungsten imports.
- — Substantial percentage of the U. S. uranium imports.
- 42% of the U. S. zinc imports.

Aconic Seeks U. S. Deals,

Two possible "new deals" between **Aconic Mining Corp.** and U. S. interests were under consideration this week as Aconic shares continued a downward trend on the Toronto Stock Exchange.

A company spokesman declined to elaborate on nature of the proposed agreement but hinted that one deal had reached a fairly advanced stage.

Aconic is not taking up the offer of **Klockner & Co.** of Germany under which Aconic would have raised $2 million as its share of a $10-million iron sands concentrating plant near Natashquan, Que.

Shares of the company on the TSE declined at mid-week to $1.54 from a recent price of $1.82 after slumping sharply from $11 about a month ago (FP, Aug. 10).

Meanwhile additional claims totaling about $5.3 million have been introduced in the personal bankruptcy case of Aconic official Clifford James Butler of Montreal. A previous bankruptcy petition listed Butler's liabilities at $2.6 million (FP, Aug. 17).

Butler went into bankruptcy shortly after the plunge of Aconic stock from $11 to $1 on the morning of August 6.

Counsel for some 25 Montreal and Toronto brokerage houses have told the official receiver they would contest the validity of the new claims—largest of which is for slightly over $5 million claimed by Joseph Beaudry, former Aconic president.

ANNOUNCEMENT

CANADAIR APPOINTS VICE-PRESIDENT AND COMPTROLLER

FREDERICK R. KEARNS

The appointment of Frederick R. Kearns as Vice-President and Comptroller has been announced by J. Geoffrey Notman, President and General Manager of Canadair Limited. Mr. Kearns was formerly Executive Assistant to the President.

ADVICE on how to use a pencil—and go broke in the process.

A dethroned princess—royal claimant to a $28 million family fortune in communist Poland—is presently eating only because she takes in $14 a week as a result of her employment which involves guarding a railway crossing. Sympathizers to her cause hope she'll soon be enjoying the pleasures of her dearly missed wealth, but in the meantime the princess has learned that the master of the financial world goes by the name of negotiable assets. That he pays his subservients according to the going market value of the goods, services, and equities they produce—seldom giving a second glance to the "inherent and future value" of these items.

THE PAPER SAYS $1,000—THE BUYER $450

Many investors have learned the same thing during the current market action. They had bought stock certificates which according to various annual reports represented a $1,000 equity in a given firm. Now they learn these pieces of paper can't be sold for even half that much.

USE THE PENCIL — BUT WATCH THE PUBLIC

The Canadian Forecaster tells its clients the price of a stock is influenced by such things as physical assets and market value of the holdings of the company standing behind the stock. But it also tells them that for all practical purposes, the stock is worth no more than what someone is willing and capable of paying for it. The Forecaster says further that "willingness" and "capabilities" of the trading public are fickle things at best, subject to change without notice—urges clients not to fight these traits, but rather use them to their advantage by accumulating selected stocks at rock-bottom prices as they are thrown away or neglected by a whimsical majority, and selling them back to this same group when its capricious attitude does a reversal and causes the price of these stocks to jump skyward.

DOLLARS OR EQUITIES

How does this type of advice help our clients? When POWER CORPORATION was trading near $67 we said buy because the public wouldn't be able to leave this issue alone for long. When the stock rose to $79, we ignored reports which said the market value of Power Corporation's holdings equaled $107 per share. Told clients to take profits because our analysis of the trading public's attitude pointed to a reaction in this stock. Power Corporation fell rapidly to under $55. Did you buy BELCHER MINING when the "mathematicians" said it was good at $1.90, and then join the losers who sold when it fell off in a matter of days to $1.50? Did you purchase TECK-HUGHES when these same people said it was a bargain at $2.40, and then take your losses when this stock skidded to $1.60? The Canadian Forecaster said "wait for a reaction in Belcher to $1.50 and below"—"hold off on Teck-Hughes until it falls back closer to $1.50." Clients who followed our advice—based on an experienced knowledge of trading attitudes as well as on "the figures"—have made gains of 20 to 40 points in a matter of days.

WHAT ABOUT YOU

The Canadian Forecaster tells clients what stocks to buy, when to sell—and why. For a $5 trial subscription, we'll show you over a 60-day period how our weekly advisory bulletin (minimum of 8 pages) helps our clients all over the world make consistent gains in the Canadian stock market. In special sections and in easy to understand language we'll show you how the latest and proposed developments in financial, mining, oil, and industrial circles will affect your trading activity. The annual fee for our bulletin which is published on Thursdays, is only $35. Address: The Canadian Forecaster, 231 Examiner Bldg., Calgary, Alberta, Canada.

Gold Output Rises Slightly

Gold production in Ontario rose slightly from 191,009 oz. in July last year to 198,620 oz. in July this year, the department of mines reports.

The province's 30 producers milled 718,468 tons of ore in the month this year compared with 711,076 tons in July, 1956, when there were 31 producing mines.

Silver production declined to 30,620 oz. in the month this year from 31,212 oz.

Total July production value was $6,572,323 compared with $6,586,295 in July, 1956.

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NATURE OF BUSINESS FP-60

Company Reports

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Oil

GREAT SWEET GRASS OILS had a consolidated net loss of $587,951 in 1956 compared with a loss of $343,750 on a non-consolidated basis in 1955.

The company has had to meet "some extraordinary administration expenses" in connection with a hearing before the **Securities & Exchange Commission** in the U.S. in 1956 and legal expenses in 1957, President Colin A. Campbell says.

Financing and merger plans were interrupted by the SEC hearing and subsequent delisting of shares from the American Stock Exchange and from exchanges in Canada, he says. The SEC decision is being appealed, Mr. Campbell reports.

A large capital investment would be required to turn the company' undeveloped reserves into revenue producers, he says.

In the year, the company's production of oil and gas amounted to $450,624, Mr. Campbell reports.

CONSOLIDATED INCOME ACCOUNT

Years Ended Dec. 31:	1956	*1955
Net prodn. inc.	$279,116	$3,702
Add: Misc. inc.	91,332	10,266
Less: Gen. & adm. exp.	378,749	188,154
Depr., depl. & amort.	280,334	8,364
Aband. prop. & wells	231,842	163,202
Other w/o	71,868	.....
Net loss & deficit	587,951	343,750
Shares o/s at Dec. 31:		
Common, $1 par	5,000,000	4,750,000

*Not consolidated.

CONDENSED CONS. BALANCE SHEET

As at Dec. 31:	1956	*1955
Cash	$40,915	$59,854
Accts., etc., rec.	63,316	62,274
Investments	84,480	.....
Inventory	41,420	4,176
Total curr. assets	229,361	136,304
Prepaid exps.‡	2,038	.....
Deposits	35,254	71,725
Other invest.	278,020	1,133,729
Wells, leases, etc.†	8,796,322	9,376,811
Mining cls.	1,073,935	4,022
Misc. assets*	732,533	8,814
Total assets	11,149,303	10,731,405
Accts., etc., pay.	308,223	147,289
Note pay.	96,062	.....
Total curr. liab.	404,285	147,289
Deferred liabs.	53,878	.....
Minority int.	870	.....
Capital stock	5,000,000	4,750,000
Capital surplus	7,726,582	7,382,677
Less: Deficit	2,036,512	1,448,561

*Not consolidated.
‡Incl. in curr. assets in co.'s report.
†After depr., depl. & amort. of 250,235 19,513
*After depr. of 92,597 1,375
Working capital* 175,684 10,985
*Excess of curr. liabs. over curr. assets.

Mining

SISCOE MINES reports record production of 784,763 oz. of silver by its subsidiary, **Siscoe Metals of Ontario**, in the first eight months this year compared with 633,882 oz. in the same period of 1955. Comparison with 1956 is not possible since a fire closed down the operation for a substantial period.

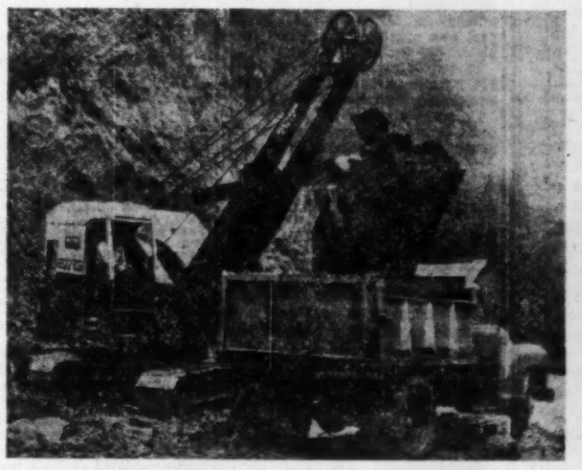
Cobalt production in the period this year amounted to 16,550 lb. compared with the 1955 figure of 16,815 lb.

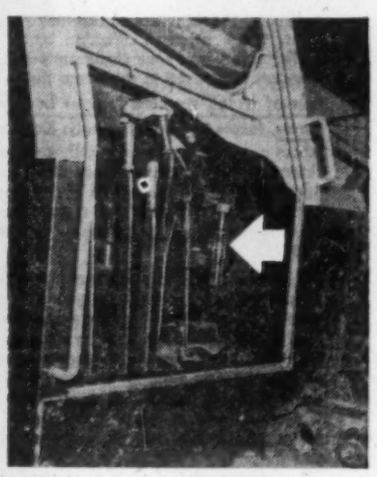
Silver output in August at 110,913 oz., and July, at 103,603 oz., was up from 1955 results of 83,520 oz. and 88,151 oz. respectively for the same two months.

The Engineer's Report

CASE HISTORY
PRODUCT Chevron Starting Fluid
FIRM Larry Hendricks Construction Co., Mt. Vernon, Wash.

Special fluid starts shovel in seconds saves manpower, batteries in cold weather





PIPE LINES, ROAD CONSTRUCTION and general contracting jobs keep this ¾ yd. Bucyrus-Erie shovel working hard the year 'round. The Larry Hendricks Construction Co. uses 7-cc. gelatin capsules of Chevron Starting Fluid to get the rig's GM-371 powerplant into action fast in cold weather. Owner Hendricks says, "This shovel makes money only when it's working. I can't afford to waste man-hours or wear down batteries getting it started. With Chevron Starting Fluid one man puts it on the job in a few seconds, even in coldest weather. We like the capsules, too. They deliver a safe, controlled charge. Too much fluid makes an engine race, and that ruins bearings quick." Capsules are discharged through manual applicator installed in cab of excavator. (See arrow, right.) Chevron Starting Fluid atomizes at temperatures as low as -65°F. Fires under pressure or weakest engine spark.

FREE FOLDERS tell you more about Chevron Starting Fluid and the Chevron Pressure Primer System. Write or ask for them today from any of the companies listed below.

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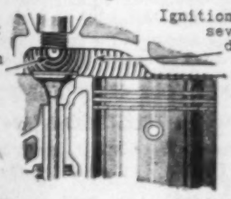

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LONGWOOD EQUIPMENT CO. LTD., Toronto, Ontario
STANDARD OIL COMPANY of British Columbia Limited, Vancouver 1, B.C.

Halliwell Tests Copper Ore, Irish Plans Start, Mogul Says

Ore reserves of **Consolidated Halliwell** have been estimated at 5.2 million tons averaging 1.7% copper on basis of drilling so far, W. W. Weber, consulting geologist, says in the annual report of **Mogul Mining Corp.**

The richer, selected areas amenable to mining in the Meme No. 2 ore body have been proven in underground development to contain 1.7 million tons averaging 2.56% copper, he reports.

Initial metallurgical tests on bulk samples of varying grade indicate recoveries of over 90% of copper content in a concentrate ranging from 30% to over 40%, Mr. Weber says.

Further metallurgical testing is being carried on to define planning for production, he says.

Other highlights of the Mogul report:

—Mogul investments, on basis of quoted value of free securities, had a combined value of $14.7 million as at April 30 this year. Of this amount, free securities accounted for $12.1 million with the remainder escrowed shares. Other shares in the portfolio, not identified, are shown at cost of $2.4 million.

—Tempo of work at **Irish Copper Mines** in Eire has been uninterrupted despite decline in metal prices, Mr. Weber says. A 4,000-ton daily concentrator is under construction, slated for completion during 1958.

—Estimated reserves of Irish Copper are given as 20.6 million tons averaging 1.11% copper.

—Work at **Eastern Metals** was suspended early this year due to exhaustion of available funds, while development at Mogul's Harvey Hill mine and **Canam Copper's** mine in B. C. were suspended because of lower metal prices.

—Mogul maintains a "major interest" in **Thorncrest Exploration** which has been drilling its third hole to basement rocks at Nordic Lake in the Blind River field and plans a fourth hole.

SAVANNA CREEK GAS & OIL expects cash earnings from its working interest in the Savanna Creek gas field to provide company with a dependable and growing income source, President Robert D. Brown says in the annual report for year ended May 31, 1957.

A contract with **Westcoast Transmission,** signed in Aug. calls for delivery of gas starting no later than Nov. 1, 1959. Price begins at 12c mcf.

Savanna Creek also has an agreement with **El Paso Natural Gas** under which El Paso will loan Savanna funds for development in the Savanna Creek field.

ANNOUNCEMENT

ROYAL BANK APPOINTMENT

G. A. OWEN

Appointment of Gordon A. Owen as Supervisor of branches in Nova Scotia and Prince Edward Island is announced by The Royal Bank of Canada.

Mr. Owen joined the bank in his native province of British Columbia in 1922 and brings to his new post a wide background of banking experience both in Eastern and Western Canada. He served with the Supervisors' offices in Calgary and Toronto and at Head Office in the Credits and Inspection Departments. In 1940 he was appointed Assistant Manager of Edmonton Branch, in 1944 Manager of Edmonton, Jasper Avenue Branch, and in 1946 Manager at Fredericton, N.B. In 1948 he was appointed Manager of Halifax Branch.

Mr. Owen succeeds Kenneth Mackenzie, who has been Supervisor of the Royal Bank's branches in Nova Scotia and Prince Edward Island since 1948 and who is retiring on pension October 31st.

Taking Stock

What's going on in the mining and oil markets — the facts and rumors.

By RAY MAGLADRY

First sign of strength in copper prices in several weeks brings buying into Canadian copper and mixed metal stocks briefly.

But the copper price situation is still unsettled on world markets. After London Metal Exchange, U. S. custom smelter and African producer prices firmed slightly, weakness showed up again.

Here's how some lower-priced copper issues moved recently:

	Latest Price	Week's High	Week's Low	1957 High	1957 Low
	$	$	$	$	$
Campbell Chib.	7.00	7.75	5.85	13½	5.85
Chib. Jaculet	.94	1.13	.70	4.25	.70
Coldstream	.69	.77	.47	2.14	.47
Cons. Halliwell	.50	.60	.38	1.38	.38
Copper Rand	2.00	2.35	1.61	5.20	1.61
Merrill	.98	1.15	.83	2.08	.83
Nipissing	1.65	1.79	1.60	3.35	1.55
Quebec Copper	.52	.58	.45	1.25	.35
Temagami	2.35	2.75	2.00	4.90	1.85

* * *

THE BUZZ IN BOARD ROOMS—is that action of the Canadian dollar may point to some improvement for producers who have been absorbing a high discount on exported production. The premium on Canadian funds in relation to U. S. dollar has eased from around 6c to less than 4c recently.

Investors showing continued interest in gold mines which are benefiting from lower exchange rate on Canadian funds. Mint price for gold has risen in recent weeks to around $33.53 from an earlier price below $33.30 per oz.

Kerr-Addison climbs to $16.25 from recent price of $15¾, **Cochenour-Willans** continues a steady rise, moving to a new high at $2.05 from $1.83 recently, settles at $2.03, and **Campbell Red Lake** bumps to $5.85 from $5.25 in a week.

* * *

Some producing coppers fail to join the brief upturn in lower-priced issues. **Geco Mines,** just getting into production, slips to a year's low at $8.60 from $10.75, partially recovers to $9.05. **Willroy,** also a new producer at Manitouwadge, sells at a 1957 low of 96c compared with $1.10 recently. Willroy settles at $1.04.

Opemiska Copper Mines, reporting sharply lower earnings for the second quarter, sells down to $7.30 from $7.85, but later rebounds to $8.50. **Campbell Chibougamau** also lower as company reports net profit equal to 97c a share in year ended June 30, compared with $3.19 a share the previous year. Stock touches a year's low of $5.85 but rebounds to $7.

* * *

A firm spot is **Cassiar Asbestos** rising to $7.10 from $6.75. Cassiar has an option agreement with **Conwest Exploration** to buy latter's interest in various asbestos properties in northern B. C.

Under the deal, Conwest will receive $100,000 now, plus $400,000 and 200,000 Cassiar shares before October, 1960, if option is taken up. Conwest stock at $4.25 compares with $4.20 recently.

Mining news grows thinner as markets are soft. News of drill results from **Fatima Mining's** Timmins area nickel prospect apparently attracts only mild interest as the stock eases to 92c from $1.10 recently.

* * *

Holding relatively firm in sloppy markets is **Consolidated Mining & Smelting** which earlier this year sagged from $28¾ to just above $20. Smelters appears to gain support as it moves from $21⅝ to $22¾ before settling back to $21¾. **Hudson Bay Mining & Smelting** rebounds from a low of $49 to $54.

A **John M. Easson & Co.** market review tentatively estimates Smelters' earnings this year at $1.20 a share, Hudson Bay's at $2.90 per share. Last year, Smelters earned $1.83 a share and Hudson Bay $7.62 per share.

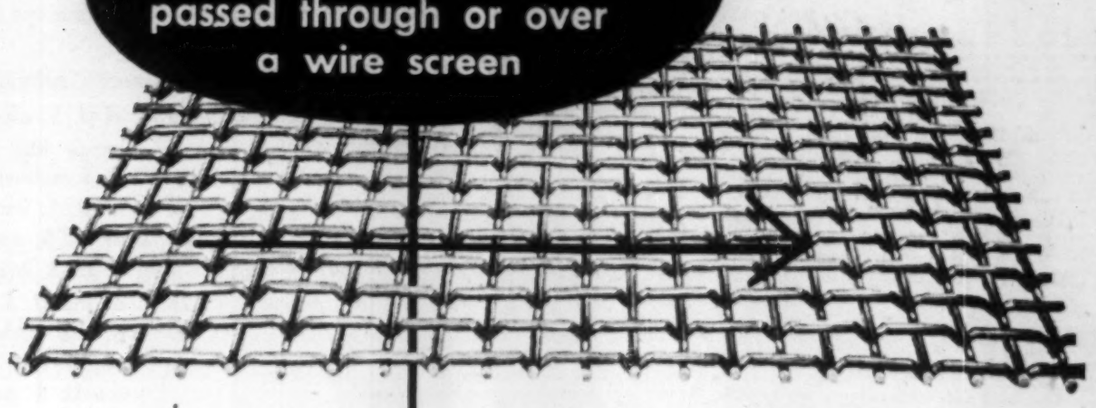
* * *

ON THE OIL AND GAS FRONT—Profit-taking appears to cut into recent advances of several leaders. The **Home Oil-United Oils** group is irregular, after Home opens 105 ft. of pay in its Edith Lake well in the Virginia Hills-Swan Hills area.

Home Oil B sells down from $21½ to $20½, settles at $20¾ and United Oils at $3.80 compares with $3.85 recently. Mining companies with interests in Home's program also lower, with **O'Brien** slipping to 62c from 67c, **Moneta** at 80c compared with 87c and **Buffalo Ankerite** dipping down from $1.05 to 95c, later recovering to $1.05.

Look around you—

almost every product you see has, at one stage of its production — passed through or over a wire screen



It may have been a very fine screen or an abrasion-resistant Donald smooth top screen as illustrated. All types are manufactured by Donald for every screening requirement.

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Cdn. Int. Power To Cancel Stock

MONTREAL (Staff) — Shareholders of **Canadian International Power Co.** will meet Oct. 3 to vote on a bylaw providing for cancellation of 22,500 shares of 1956 series preferred stock and restoring to earned surplus $1,125,000 from the purchase of the shares.

Ratification is needed by law to cover the retirement with funds from the stock purchase fund of issued last Dec. as partial compensation for acquisition of stock of **International Power Co.**

The preferred stock issue terms provided for a stock purchase fund to retire 2% per year of the the company of preferred shares preferred stock then issued.

The issue, still outstanding, amounts to 570,189 shares of $50 par, preferred stock of which 2% amounts to 11,404 shares. The shares planned to be retired represent almost double the amount stipulated for this year.

SIGMA MINES (QUEBEC) had gross production in Aug. of $213,917 from 34,720 tons milled, down from $219,785 in July and $221,633 in Aug. 1956.

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Use aluminum?

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Urgent Attention of Shareholders

CABLE MINES AND OILS LIMITED
(No Personal Liability)
Listed on the Toronto Stock Exchange and the Canadian Stock Exchange

Reflecting the activities of the new Management, which assumed direction and control earlier this year, your Company's Board of Directors is pleased to announce the acquisition of a full working interest in three oil leases, located in Russel County, Kansas. The leases are held through a wholly-owned subsidiary, Cable American Mines and Oils Corporation and are subject to a mortgage of approximately $50,000 and a contingent oil payment, out of production, of around $45,000.

Six oil wells are now in steady production, yielding a gross income to your Company, after allowing for all royalty payments, currently indicated to be at the rate of around $100,000 per year. The engineers have recommended the drilling of five additional wells available as "inside" locations on these oil leases, which, when successfully completed, should substantially augment production income.

A special Progress Report, detailing this new acquisition along with other continuing plans of your Company, is now being prepared and will be mailed to all Shareholders of Record at an early date. Shareholders holding certificates of the predecessor company, DAINE MINING CORPORATION LIMITED, or "Street" certificates not registered in their name and address, are urgently requested to forward same to the Company's Transfer Agent for exchange into the new shares, etc. This will ensure prompt receipt of the current Progress Report and other information of importance.

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CABLE MINES AND OILS LIMITED
Head Office: Suite 604 - 660 St. Catherine St. W. Montreal, Quebec
Executive Office: Suite 402 - 100 Adelaide St. W. Toronto, Ontario

Company Reports

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Oil

PARKER DRILLING CO. OF CANADA had net profit of $315,842 equal to $1.02 per share in the year ended April 30, 1957, compared with net profit of $314,050 equal to $1.01 a share the previous year.

Operations and earnings this year are expected to show increases over the past fiscal year, President C. A. Nabors says.

Parkers' operations now extend from the Yukon to southest Saskatchewan, he points out. In the past five years, company has completed 329 wells.

In the year, Parker spent $537,174 for purchase of capital equipment, he reports.

Company's policy will be to continue improving service to the industry, through more drilling units, more efficient equipment and methods of operation, Mr. Nabors says.

INCOME ACCOUNT		
Years Ended Apr. 30:	1957	1956
Net income	$979,060	$679,939
Less: Deprec.	419,161	340,750
Amort. lease improve.	791	659
Est. inc. tax	263,700	238,077
Add: Prof. disp. f.a.	17,622	11,547
Interest	2,603	2,050
Net profit	315,842	314,050
Less: Dividends	155,002	124,001
Surplus	160,840	190,049
Earnings per Share and Dividend Record:		
Earned	$1.02	$1.01
Paid	0.50	0.40
Shares o/s at Apr. 30:		
Common, n.p.v.	310,003	310,003

CONDENSED BALANCE SHEET		
As at Apr. 30:	1957	1956
Cash	$87,673	$172,990
Dom. bonds‡	147,125	99,000
Accts. rec.	811,462	525,215
Uncomp. well costs	82,394	117,373
Life ins., c.s.v.	7,217	5,372
Invent.	25,667	54,775
Total curr. assets	1,161,538	974,723
Prepd. exp.*	8,132	11,300
Misc. assets	19,721	20,311
Fixed assets▲	1,324,850	1,206,839
Total assets	2,514,241	2,248,373
Accts., etc., pay.	336,378	248,334
Divds. pay.	77,501	77,501
Prov. for taxes	160,927	128,925
Total curr. liabs.	594,806	454,780
Capital stock	1,393,003	1,393,003
Earned surplus	524,432	363,592
‡Market value	146,850	98,050
▲After deprec. of	1,354,826	976,278
*Incl. in curr. assets in co.'s report.		
Working capital	566,732	519,943

CENTRAL EXPLORERS had a net loss of $395,836 in 1956 after a loss of $256,975 on sale of Petrol Oil and Gas shares. Loss in 1955 was $488,200 when the company had a profit of $53,145 on sale of investments.

Shareholders at the annual meeting Oct. 10 will consider acquiring B. H. Hadley, Inc., of the U.S. for 1,160,000 Central Explorers shares. The Hadley company designs and manufactures special machine parts and tools.

CONS. INCOME ACCOUNT		
Years Ended Dec. 31:	1956	1955
Net production	$136,141	$145,622
Less: Gen. exp.	104,081	91,148
Depl., deprec., etc.	144,747	577,607
Interest	14,523	18,211
Add: Prof. inv. sale	*268,526	53,145
Net loss	395,836	488,200
*Loss.		
Earnings per Share and Dividend Record:		
Common	d$0.28	d$0.39
None paid.		
Shs. o/s at Dec. 31:		
Common $1 par	1,429,846	1,250,000

CONDENSED CONS. BALANCE SHEET		
As at Dec. 31:	1956	1955
Cash & deposits	$110,620	$126,403
Accts., etc., rec.	28,502	26,274
Mkt. sec.▲	388,167	157,509
Total curr. assets	527,289	310,186
Invest.	54,883	36,092
Misc. assets	27,000	3,132
Fixed assets, leases, devel., etc.*	1,371,807	1,359,015
Total assets	1,980,979	1,708,425
Bank loan	1,001,000	
Other curr. liabs.	86,045	57,893
Total curr. liabs.	186,045	57,893
Funded debt		350,000
Capital stock	1,429,846	1,250,000
Capital surplus	1,628,659	918,287
Deficit	1,263,571	867,735
▲Market value	291,834	128,070
*After deprec., depl. & amort. of	764,719	660,737
Working capital	341,244	252,293

Leitch Gold Profit Up

Leitch Gold Mines reports a slight increase in net profit to $166,464 in the first half of 1957 from net of $162,215 in the same period last year. Earnings per share are about six cents.

Here are comparative figures.

	First Half 1957	First Half 1956
	$	$
Production	601,945	445,131
Sundry Income	24,318	4,970
Op. Expenses	395,831	403,099
Depreciation	19,368	20,790
Taxes	44,600	64,000
Net profit	166,464	162,215

Fatima Extends Nickel Ore Zone

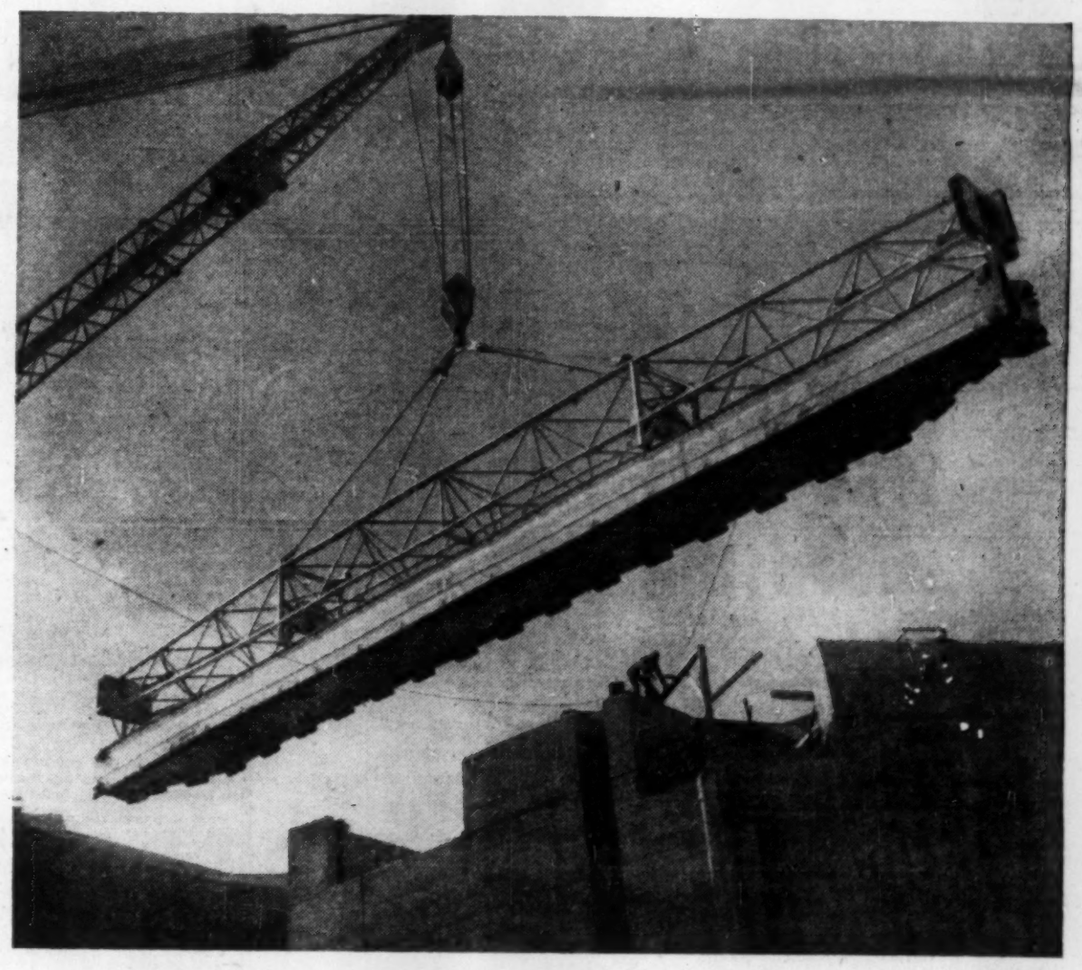
Fatima Mining reports the ore zone has been extended by two more drill holes another 100 ft. north of drill hole No. 7 on company's nickel property south of Timmins.

Assays from holes No. 8 and 9 in section 15 show the following results:

—A 25-ft. section assayed 1.14% nickel from 530 to 555 ft.

—Another section from 690 to 710 ft. gave an average of 1.20% nickel over the 20 ft., with one 5-ft. section assaying 2.04% nickel.

Vertical drilling at the southerly end of the north-south strike of the ore body also has encountered good results, reports President E. F. Carr.



MLW builds Stop Logs for the St. Lawrence Seaway

Fabricated steel stop logs are slotted into the Seaway canal to create a watertight barrier and permit "dry" installation or repair of the permanent lock gates. MLW is building a total of 102 stop logs (each weighing 32 tons), together with 10 lifting booms, for the five sets of Canadian Seaway locks between St. Lambert, Quebec, and Iroquois, Ontario.

This fabrication of stop logs is an example of the diversity of operations carried out at MLW. In addition to serving Canada's railways as a foremost builder of diesel locomotives, MLW builds a wide range of industrial equipment and machinery. A completely equipped plant and years of manufacturing experience are available to MLW customers, and the Company has the resources and the knowledge of key industrial markets to enter additional product fields.

MLW

Industrial Division
MONTREAL LOCOMOTIVE WORKS LIMITED

Manufacturers of diesel locomotives, heat transfer equipment, steel mill equipment, welded steel pipe, pulp and paper machinery, hydraulic and mechanical presses.

Manitouwadge in Production, Treat Over 4,000 Tons Daily

Another name can be added to the roll call of producing mine camps in Canada.

Manitouwadge—about 40 miles north of Lake Superior – has stepped out as a two-mine camp complete with new townsite and combined, initial milling capacity of over 4,000 tons a day.

Four years after initial discovery, **Geco Mines** and **Willroy Mines** are both operating as copper-zinc producers.

—Willroy began feeding ore into its 750-ton mill about mid-July, is stepping up production from 700 tons toward capacity.

—Geco, starting recently at about 2,000 tons a day, is shooting to reach capacity output within the next few weeks.

Despite the recent downward swing in base metal prices, both Geco and Willroy have pushed toward production according to original planning.

Both properties have relatively high-grade copper-zinc ore bodies, with lead and silver values as well. Officials look for profitable operations even at present prices.

But current copper, zinc and lead prices — all down from last year's levels — are likely to cut into the kind of profits that were anticipated at the first of this year.

Here's how the $30-million Manitouwadge development appears to be shaping up:

Gross value of Geco ore about a year ago was estimated around $22.70 a ton. Since then, price of copper has slid by about 30% and zinc by more than 25%, and discount on U. S. funds has risen. The new price structure has likely reduced this gross value per ton to around $17-$19.

Despite this drop, company's margin of profit is still expected to be reasonable.

Geco has no funded debt but has been financed to production by **Mining Corp.**, which manages the operation, and a group consisting of **Noranda Mines, Normetal Mining, Quemont Mining, Teck-Hughes Gold Mines** and **Lamaque Gold Mines.**

Including provision of stores and working capital over the next three or four months, it is possible the loans to Geco may total over $12 million.

These loans will be retired out of earnings.

Among capital cost items, nearly $2 million was spent on housing for rental to employees in the new Manitouwadge townsite. Another $3 million is required for working capital and stores.

Could Boost

Geco has been doing no development in recent months as it concentrated on getting into production.

Milling rate, around 2,000 tons now, may reach rated capacity of 3,300 tons daily in November, it is understood.

Although no increase in mill capacity has been announced by Geco, its main production shaft is capable of handling around 5,000 tons of ore daily. The mill could be boosted to that rate, observers believe.

The mine picture:

—Estimated over-all reserves come to 15.2 million tons grading 1.76% copper, 3.48% zinc and 1.77 oz. of silver.

—Main production shaft sunk to 1,486 ft. Mine development has been carried out on all six levels to 1,250 ft.

—Initial production is coming from A ore zone where ore grades 2.19% copper, with lower zinc and silver content. Tonnage amounts to about 5.6 million tons in this ore body.

—Some 7.1 million tons grading 1.38% copper, 3.91% zinc and 1.55 oz. silver has been estimated in the B ore body. Reserves in the C ore body are placed at 2.4 million tons averaging 1.89% copper, 6.06% zinc and 3.38 oz. of silver per ton.

Costs for Geco will hinge on the milling rate. Capacity of the mining operation is much higher than rated mill capacity of 3,300 tons.

Revise Outlook

Willroy also expects to show a profit at present metal prices, although expectations have naturally been revised downward with the drop in price levels.

Company official says a modest operating profit is being made now at less than mill capacity. Mill heads are higher than anticipated, he says.

Willroy's debt consists of a $5.5 million 5% first mortgage bond issue, arranged last year to bring the property to production. Other funds were advanced by **Consolidated Howey** and Teck-Hughes Gold Mines. Consolidated Howey manages the Willroy operation.

Reserves are estimated at 2.2 million tons of ore averaging 1.1% copper, 6.85% zinc and 1.76 oz. of silver.

Of this tonnage, about 1.2 million tons are in the No. 3 ore body from which initial production is coming.

Copper and zinc grade higher in this zone, at 1.2% and 11.02% respectively, than for over-all reserves.

85% Recovery

Willroy is shooting for an 85% recovery of copper content to make a 25% concentrate. Zinc and lead recovery is expected to average about 85% also, with a 50% or better zinc concentrate and a 50% lead concentrate to be produced. There is also silver content in the ore.

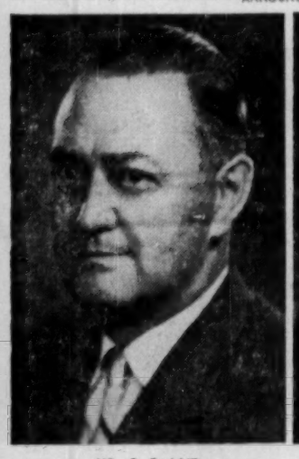
Geco was originally formed late in 1953 to take over **H. & H. Manitouwadge** and with it claims covering a new copper-zinc discovery north of Manitouwadge Lake.

Diamond drilling over the next year sparked a rush of claims-staking and market activity, with Geco's shares soaring from around $5 to $13 in 1954. Ore intersections were obtained to a maximum vertical depth of 1,300 ft. An average width of 75 ft. was indicated.

Underground drilling was later carried out from two adits driven to prepare the upper part of the A ore body for mining.

Truck road and branch lines of both **CPR** and **CNR** give access to the Geco property.

ANNOUNCEMENT



MR. C. E. LAIT

W. S. LEGGAT

Mr. W. C. Pietz, President of Raymond Concrete Pile Company Limited and of Raymond International Company Limited, announces the appointment of Charles E. Lait as Assistant Treasurer and Assistant Secretary of each of the above companies. He was previously Chief accountant for each company. For the past ten years Mr. Lait has been associated with general contractors in Eastern and Western Canada. He will carry out his duties from the Head Office of each company located at 77 York Street, Toronto.

Mr. William S. Leggat is appointed Construction Manager of Western Canada for the Raymond International Company Limited. Mr. Leggat graduated from the University of British Columbia as a civil engineer and after the war was associated with general contractors on the West Coast. As a Major in the Royal Canadian Engineers he was awarded the Military Cross. Prior to joining Raymond he was assistant to the Construction Engineer for the St. Lawrence Seaway Authority. Mr. Leggat, a Professional Engineer, is a member of the Engineering Institute of Canada and the Military Engineers Association. His headquarters are in the company offices at 1104 Hornby Street, Vancouver, B.C.

September blue book of active mining stocks available on request.

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50th ANNIVERSARY 1907 – 1957

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Company Reports

To assist readers in appraising and comparing company financial statements, The Financial Post has a uniform method of presenting corporation accounts. Variations from the companies' published reports are footnoted.

Oil

RICHWELL PETROLEUMS had a consolidated net loss of $100,319 in the year ended May 31, 1957, compared with a net loss of $55,167, on a non-consolidated basis, the previous year.

Company did not do any new exploratory drilling in the year but two properties, in which Richwell has direct interests, have been explored by other companies, President George A. Richardson says.

Winter drilling by subsidiary, **Wilrich Drilling**, was restricted by a shorter-than-normal winter season in muskeg areas, he reports.

CONS. INCOME ACCOUNT

Years Ended May 31:	1957	*1956
Rev. from roy. & wis	$44,019	$77,593
Add: Equip. rental	13,222	580
Other income	25,320	48,327
Total revenue	84,317	126,500
Less: Oper. exps.	....	30,828
Oth. part. sh.	....	763
Gen. & admin. exps.	125,245	88,601
Debent. interest	67,712	61,475
Add: Prof. on sale sec.	28,321	....
Net loss & deficit	160,319	55,167

*Not consolidated.
‡Loss.

CONDENSED CONS. BALANCE SHEET

As at May 31:	1957	*1956
Cash	$39,886	$2,000
Accts., etc., rec.	174,419	47,016
Inventories	3,018	4,583
Total curr. assets	217,323	53,599
Prepaid exps.‡	2,990	80
Devel. costs	832,317	840,047
Misc. invests., etc.	1,887,807	1,861,440
Well equip., etc.	119,144	127,185
Lands, wells, etc.	830,155	830,236
Mining prop.	....	145,000
Other assets	414,301	340,829
Fixed assets	390,115	15,308
Total assets	4,695,152	4,313,724
Sec. notes	....	2,008
Accts., pay., etc.	130,160	107,482
Accr. deb. int.	27,555	28,127
Total curr. liabs.	157,715	137,617
Mtge. pay.	96,639	....
Notes pay.	141,170	141,167
Funded debt	1,204,500	1,229,500
Capital stock	1,260,953	2,705,856
Deficit	100,735	416
Working capital	59,608	x84,018
Capital surplus	1,934,910	....

‡Incl. in current assets in co's. report.
*Not consolidated.
xExcess of curr. liabs. over curr. assets.

ANACONDA PETROLEUM had a loss of $20,454 in the year ended May 31, up from a $50 loss in the previous year. Company formerly was **Canadian Anaconda Oils** following a capital reorganization on a one-for-five share basis.

Company intends to concentrate for the present on its 5% Savanna Creek working interest, R. D. Brown, president, states. An agreement has been signed with **Westcoast Transmission** for sale of gas from the Savanna Creek field.

INCOME ACCOUNT

Years Ended May 31:	1957	1956
Royalty revenue	$6,283	$5,874
Add: Net pro. rev.	....	13,838
Other income	1,206	....
Total net rev.	7,489	19,712
Less: Admin. exps.	21,730	16,924
Loss on sale f.a.	690	....
Depreciation	954	1,360
Depletion	1,569	1,480
Leases & wells w/o	3,000	....
Net loss & deficit	20,454	50
Shs. o/s at May 31:		
Common, 50c par	704,000	*3,426,480

*p.v.

CONDENSED BALANCE SHEET

As at May 31:	1957	1956
Cash & govt. bds.	$28,229	$100,406
Accts., etc., rec.	1,987	29,659
Total curr. assets	29,916	130,065
Investments, cost	25,170	....
Prod. wells & Roy.*	33,069	44,167
Leases, dev., etc.	212,086	120,709
Misc. assets	7,236	5,353
Total assets	307,477	300,294
Due bank	....	13,413
Accts., etc., pay.	25,836	15,438
Total curr. liab.	25,836	28,851
Capital stock	352,000	2,856,927
Cap. Surplus	131,764	....
Deficit	202,123	....
Less: Cap. deficit	....	2,412,315
*After depl. of	25,801	unstated
Working capital	4,080	101,214

ALSCOPE EXPLORATIONS is expanding its interests in oil, natural gas and mining, the annual meeting was told by President Nicholas Martini.

Company has plans for joint participation with **Canadian Homestead Oils** in several oil and gas reservations in southwest Saskatchewan and northeast B. C., Mr. Martini says.

Alscope and Canadian Homestead are to participate in a drilling program on a reservation in southwest Saskatchewan.

Company also has lead-silver-zinc property and titanium holdings in Montana, plus other properties in Northwest Territories, B. C. and Ontario.

DOME MINES had gross production in Aug. of $468,944 from 59,200 tons milled, up from $450,020 in July but down from $485,026 in Aug. 1956.

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Baysel

Opemiska Net $315,980 in 4 Months

Opemiska Copper Mines (Quebec) had a net profit of $315,980, equal to 6c a share, in the first half of the year. This profit actually represents four months production from March 1 to the end of June following resumption of output after a fire had destroyed the No. 1 headframe and crushing plant.

In the three months ended June 30, net profit was $231,490 while the first quarter showed a net of only $84,490. In the first half of 1956, Opemiska had a profit of $2,261,848, equal to 41c a share.

Capacity production was reached early in April and was maintained throughout the quarter, the quarterly report states. Average daily rate of 791 tons treated was 22 tons higher than in March.

Grade of ore milled increased slightly to 4.07% copper, 0.041 oz. gold and 0.52 oz. silver. A total of 10,754.9 tons of concentrates averaging 24.6% copper was produced.

Copper contained in the concentrates was valued at 27.84c a lb. received in the latest smelter settlement but, the report notes, actual value depends on the price of copper three months after shipment.

Operating costs, reflecting resumption of full-scale operations, decreased by 82c a ton to $8.13 a ton. Cost per pound of copper produced totaled 19.7c a lb.

Capital expenditures totaled $1,335,021 in the first half with $808,977 spent in the second quarter including $584,740 at the Springer mine.

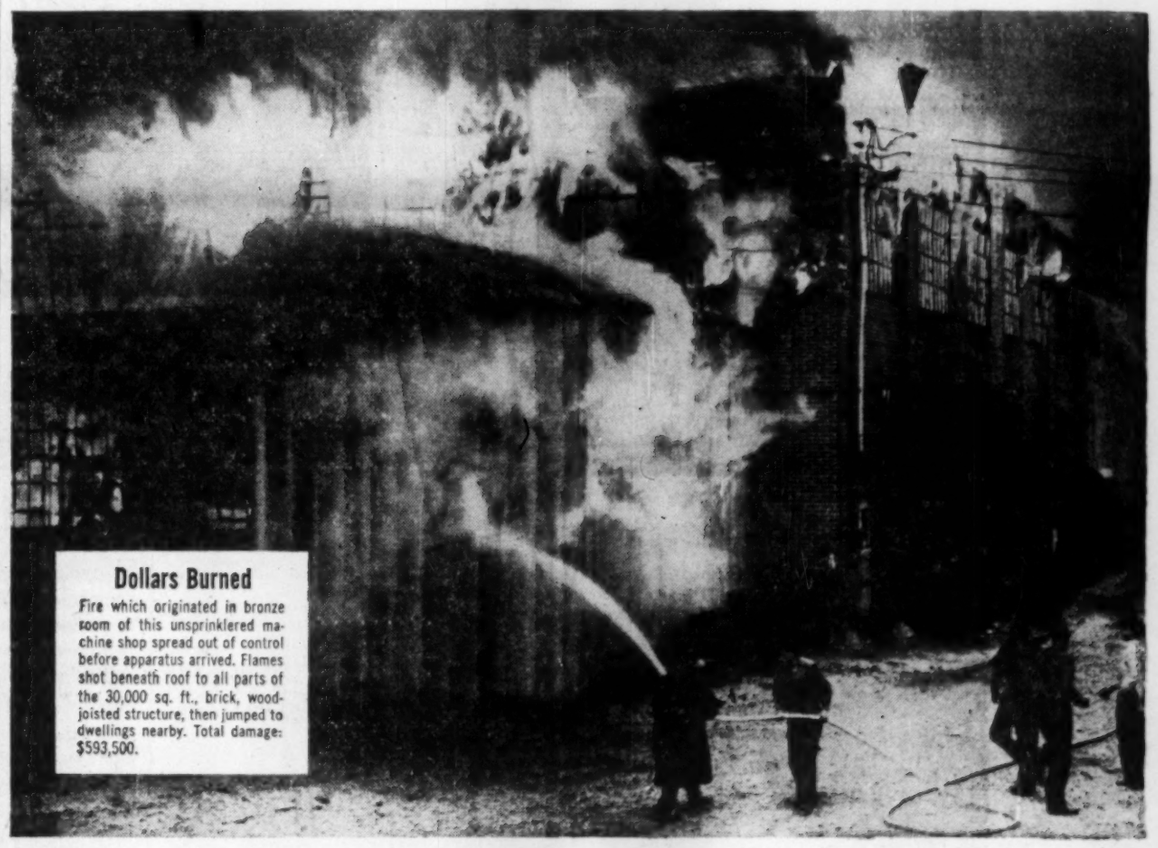
Underground drilling was on a reduced scale. The A vein was defined on the 275-, 400- and 525-ft. levels and has a length of 200 ft., a width of 3.7 ft. and averages 4.41% copper.

The "Gold-Cobalt" vein on the 975-ft. level has been cut by 10 holes and has an indicated length of 1,300 ft. with average grade of 2.89% copper and 0.7 oz. gold across a 3.5 ft. average width. Indicated length of the No. 32 vein (now No. 41) is 370 ft. averaging 5.6% copper across 5.2 ft. with drilling completed on the 975-ft. level.

No. 2 vein was exposed an additional 78 ft. on the 975-ft. level with total developed length now 340 ft. averaging 9.4% copper over 6.3 ft. average width. No. 3 zone was drifted east on the 825- and 975-ft. levels. On the 825-ft. level the drift was extended 520 ft. giving an exposed length of 2,193 ft. averaging 4.82% copper over 8.6 ft. of drift width. On the 975-ft. level, 281 ft. of ore was added with total length now opened being 2,478 ft. averaging 4% copper over drift width of 8.6 ft.

Here are comparative figures. The 1957 figures do not reflect expenses of $117,407 incurred in the first quarter because of the shut-down, pending settlement with insurance underwriters.

	First half 1957 (4 mos.)	1956
Tons milled	95,805	141,221
Produced		
Copper, lbs.	6,959,312	10,816,608
Gold, ozs.	3,320	4,253
Silver, ozs.	39,565	65,068
	$	$
Gross value	2,060,258	5,217,038
Net value	1,458,857	4,028,422
Less: Operating costs	795,862	1,337,835
Profit before w/o	687,099	2,680,587
Development w/o, deprec.	371,119	428,739
Net profit	315,980	2,261,848



Dollars Burned

Fire which originated in bronze room of this unsprinklered machine shop spread out of control before apparatus arrived. Flames shot beneath roof to all parts of the 30,000 sq. ft., brick, wood-joisted structure, then jumped to dwellings nearby. Total damage: $593,500.

Fire in two metalworking plants

Dollars Saved Flash fire occurred at the Continental Screw Co. when hot welding flux dropped through a duct hole into wooden containers of oil-covered screws on the floor below. Oil ignited and flared menacingly. Two Grinnell Sprinklers opened automatically and put out fire.

LAST YEAR, over a hundred million dollars went up in smoke. Insurance, of course, restored many of those dollars. But restoring the businesses involved is another thing! Statistics show that 2 businesses out of every 5 having a serious fire never came back. The reason? . . . rebuilding, restocking and restaffing costs never were so high!

That's why more and more businessmen are turning to insurance against fire that's 100% *automatic* . . . Grinnell Automatic Sprinklers. Grinnell Sprinklers stop fire any time, any place . . . wherever it may strike, night or day.

Grinnell Sprinklers can not only save your business, they can save you dollars — through reductions in fire insurance premiums of between 50 to 90%. And when tied in with a Central Station Supervisory Service, the elimination of costly (and sometimes uncertain) services of a watchman is possible.

Without cost or obligation, ask a Grinnell engineer to survey your property and submit a cost estimate. Write to: Grinnell Company of Canada, Ltd., Edmonton, Montreal, Toronto, Vancouver, Winnipeg.

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FIRE PROTECTION
SINCE 1878

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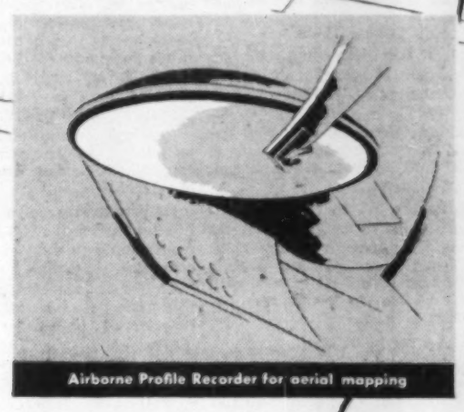
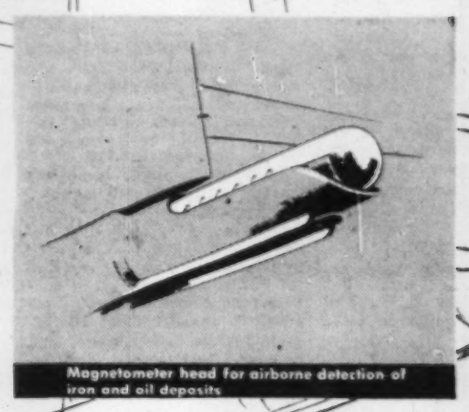
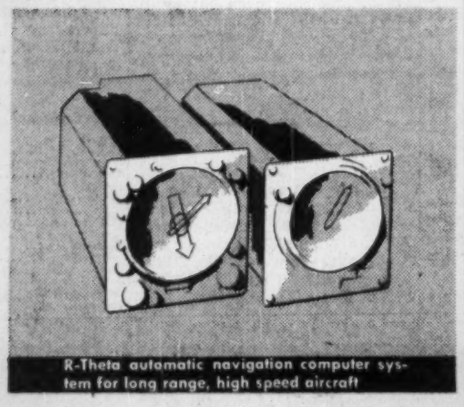


Airborne Profile Recorder for aerial mapping

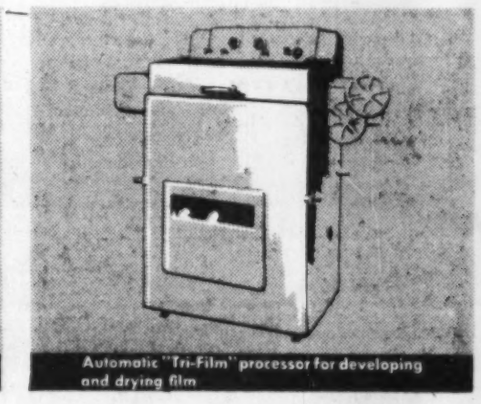


Magnetometer head for airborne detection of iron and oil deposits

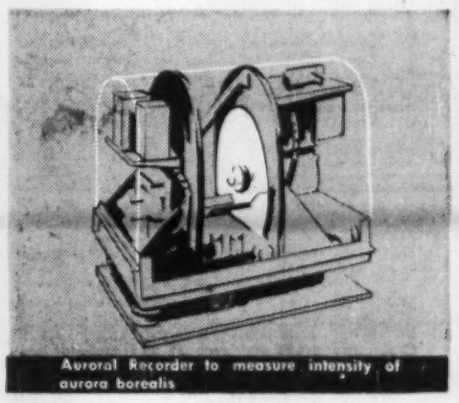


R-Theta automatic navigation computer system for long range, high speed aircraft

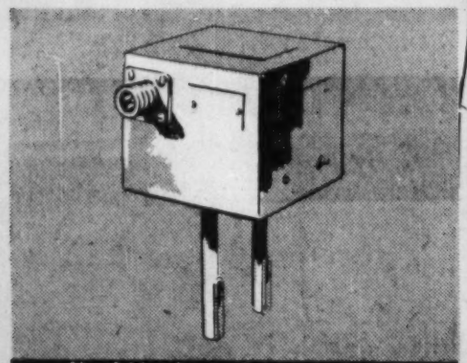
Automatic camera for recording radar, oscilloscope or instrument panel readings



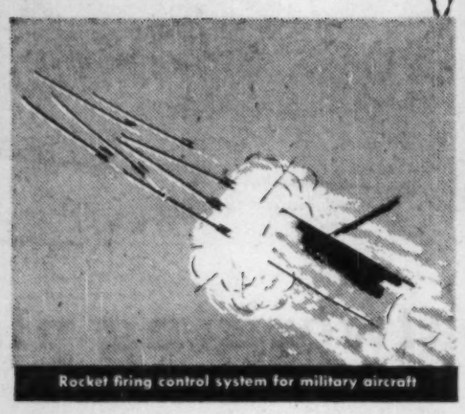
Automatic "Tri-Film" processor for developing and drying film



Auroral Recorder to measure intensity of aurora borealis



Aircraft icing detector that actuates ice shedding system automatically



Rocket firing control system for military aircraft

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Expanding member of the A. V. Roe Canada Group of companies, is Canadian Applied Research Limited. It specializes in the design and manufacture of highly sensitive electro-mechanical instrumentation for aeronautical and industrial applications. The products illustrated here indicate the extent and scope of their activities.

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The Financial Post

Vol. LI | Member of Audit Bureau of Circulations | Publication Office: Toronto, September 21, 1957 | Twenty Cents an issue. Six Dollars a Year | No. 38

PULP AND PAPER

a feature report

From a production viewpoint, 1957 has been the best year ever for Canada's pulp and paper industry.

From a profit standpoint, it has been much less spectacular.

Because the industry sells more than $1 billion of its $1½ billion output abroad, a 5% premium on the Canadian dollar cuts the industry's actual take in Canadian dollars by $50 million a year.

Even spread among Canada's 80 pulp and paper companies, that's a big chunk out of potential pretax earnings.

For instance, Great Lakes Paper's first half net loss on exchange this year was 4% of net sales. The common shareholders had 20% lopped off their earnings per share.

To some extent, this is an artificial calculation. There's no reason why the Canadian and U. S. dollars should be equal, any more than the pound sterling should always buy the same number of dollars in a free market.

Nevertheless, not so very long ago, the Canadian and U. S. dollars were approaching equality, and now there's a 5% difference in our favor. That's not much of a favor in the minds of the pulp and paper men, and the resultant drop in their earnings is very real.

Premium Not The Whole Story

While the premium on the dollar is getting much of the spotlight, some other factors have equal significance in the industry outlook:

● Rail rates have been boosted twice in the past year, are up 14% altogether. This boosts costs of materials brought to the mill, and reduces revenues on much of what is shipped out.

● Wages are up. Mill workers made $85 a week in June for 42 hours work, compared with $66 for 48 hours in 1951 and $74 for 43 hours in 1954.

● About the only item that hasn't risen is pulpwood. Average cost of wood in Canada is about $25 a cord, compared with just under $26 in 1957.

U.S. Mills Are Suffering Too

The importance of these factors in the companies' operations is illustrated by the results of their U. S. competitors, who don't have to worry about the Canadian exchange rate.

Great Northern Paper, which makes one third of all U. S. newsprint, earned only $1.79 per common share in the first half, down 32% despite a 6% increase in sales over a year ago.

Marathon Corp., leading U. S. maker of papers and containers for food packaging, showed per share earnings down 9% in the first nine months of its current fiscal year which ends Oct. 31.

St. Regis, third largest paper maker in the U. S., had a 30% drop in first half, per share earnings, on a 3% sales decline.

Reasons given for these lower earnings: Higher wages, increasing costs of fuel, transportation and materials.

Some earnings drops aren't as great as those of Canadian companies (see p. 53), but many are. Obviously, the profit problems are not confined to Canada, and are not attributable only to the exchange rate problem.

The Future: Troubles But Growth

For the future, it's apparent that there are still lots of problems, but also grounds for confidence.

● Newsprint output in 1957 could well be a record, even though it will be perhaps 3% below rated capacity of the industry. Excess capacity appears inevitable in 1958 and 1959, but most indications are that operations will be within 5%-10% of rated output potential.

● Market pulp sales are expected to be down this year. About one million tons of new capacity is being added to North American capacity this year and next — the equivalent of about 8% of pulp moving in world markets.

But industry observers see signs that this new output will be absorbed before too long. Paper consumption in the U. S., the biggest market for our surplus pulp, has shown persistent per capita growth. More Canadian pulp is being sold overseas too.

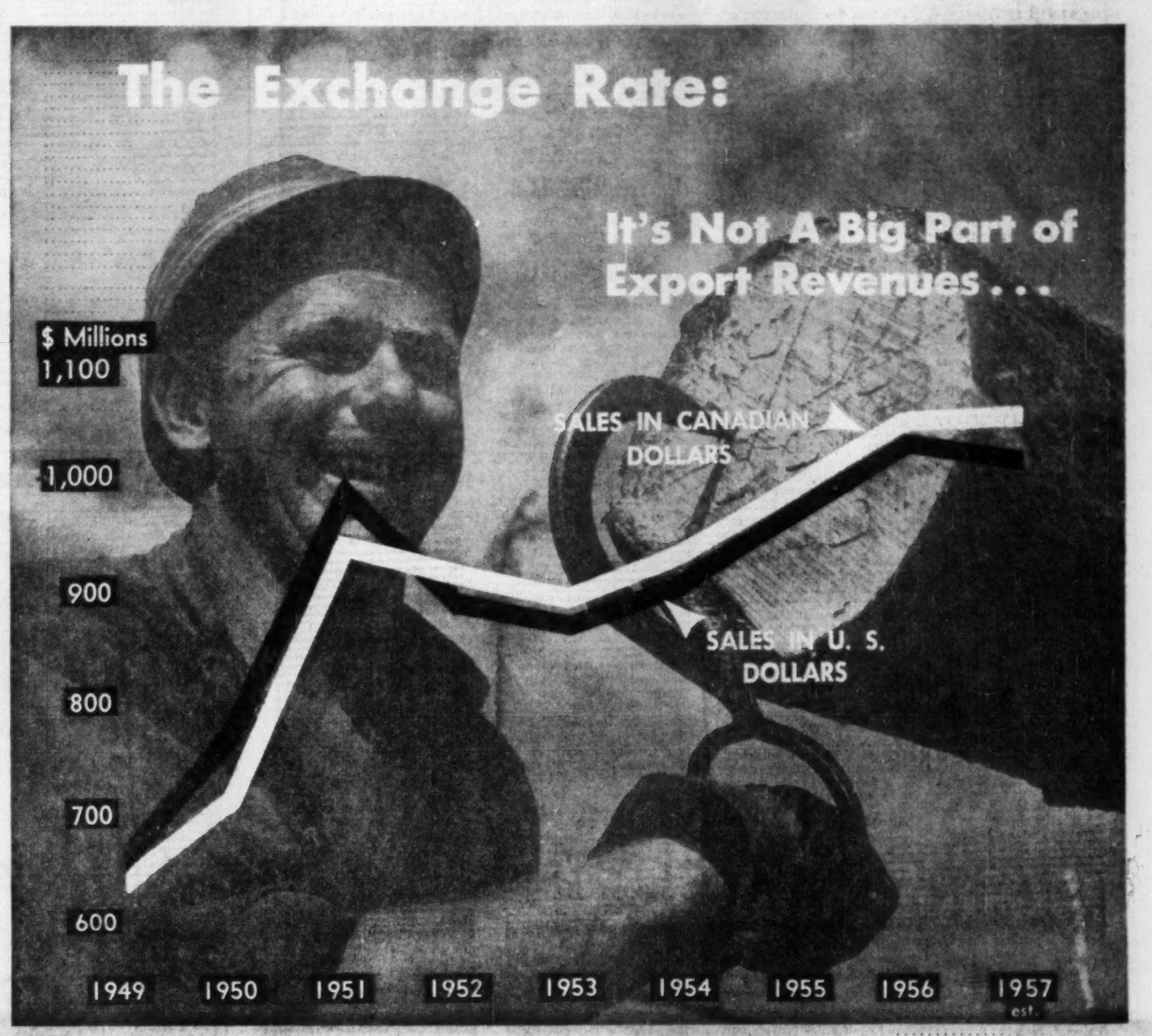
The trade is even talking about the possibility of a price rise for pulp.

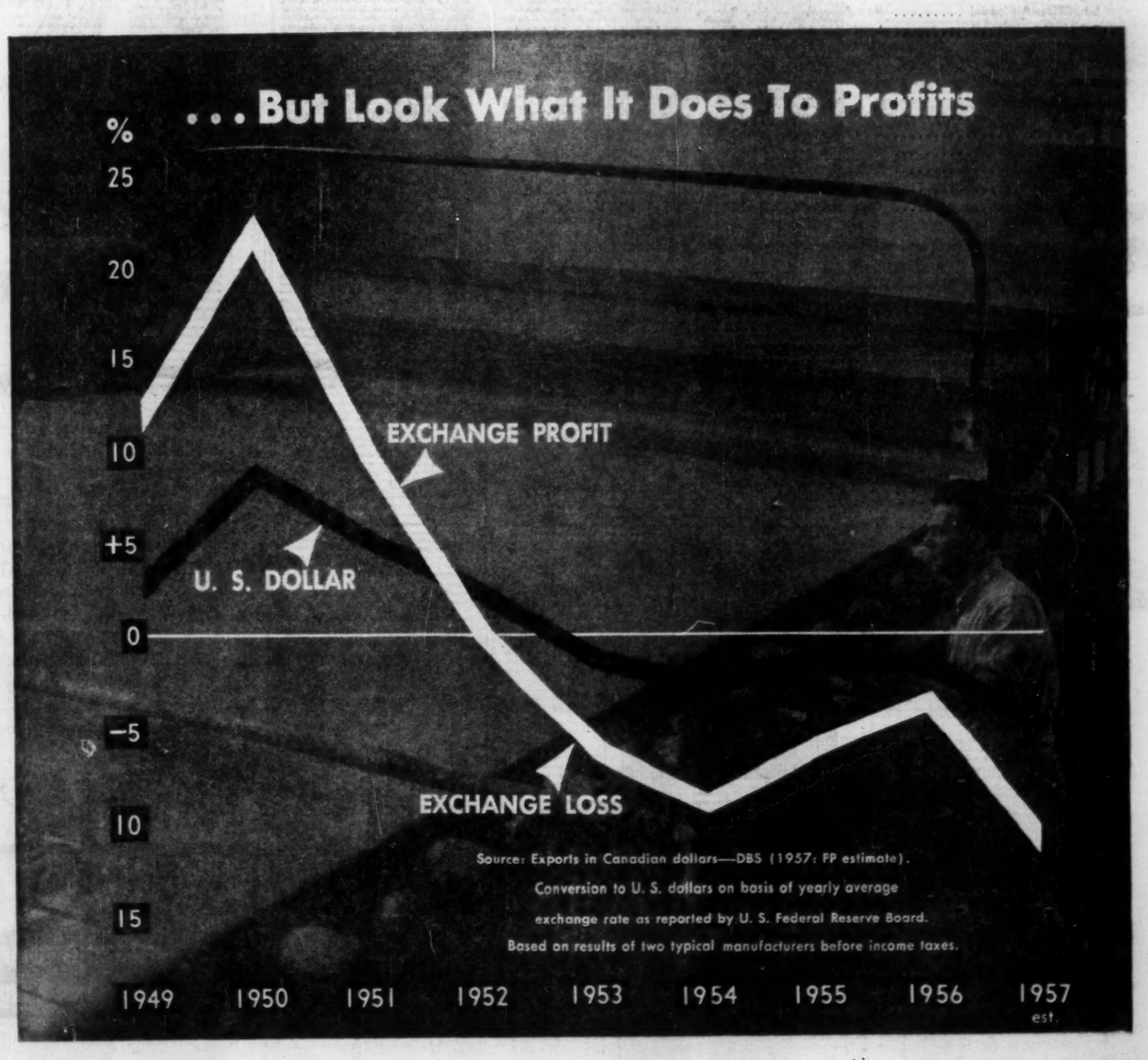
● Fine paper, paperboard, wrapping paper and other products of the Canadian industry depend largely on domestic sales. They vary with general business.

Fine-paper output has been ahead of last year and prices were raised 5% in June. Lately, volume has declined, but industry people believe business will still be good for some time ahead, and see still greater growth over the long term.

Paperboard and container business has been very competitive, and expanded industry capacity will probably continue to exceed demand in coming months. Use continues to expand.

One thing about the exchange rate: If our dollar does fall closer to parity with the U. S. dollar, some of the immediate cost and demand problems will be at least partially offset.





Newsprint Doubled By 1980 But 1958 Looks Less Certain

By ALLAN FENTON

Canadian newsprint producers this year entered a new postwar era: enough capacity to meet demand.

Along with this situation developed a philosophy based on necessity which called for harder selling in world markets.

The transition from shortage to surplus was heralded last fall as new productive capacity finally started to overtake demand. During the winter, inventories were rebuilt, demand became less urgent and then came the surplus.

Some customers requested small curtailments in orders, necessitating production slightly below full capacity. For the next two or three years, many producers prepared to operate at less than capacity until demand and supply become more in balance.

Over the longer term, the future is expected to bring a doubling in world demand by 1980.

But that's a long time away. In the next two or three years, there will be substantial capacity in excess of demand.

This year world output potential is estimated at 14,486,000 tons, 3.4% higher than demand and indicating an excess of 477,000 tons. Canada produces about 50% of world supply and assuming it has relatively the same amount as other countries, she would have an excess capacity of 240,000 tons this year. That means output of only about 3.5% below what it could produce.

On the same basis, estimated Canadian surplus of 500,000 tons in 1958 when world capacity is projected at 15.5 million tons, 7.6% higher than demand would mean operations at 93.1% of 1958 rated capacity.

In 1959, Canadian operations would be at 90.7% of its then rated capacity with world capacity estimated at 16.3 million tons, 9% greater than estimated demand.

These estimates for 1957-59 in output and demand were made this summer in a report by the U. S. Committee on Interstate and Foreign Commerce.

The key to the newsprint equation for Canada still lies largely in U.S.—by far our biggest market.

The historic average annual increase in U.S consumption has been 2% or 120,000 tons.

Currently, demand appears to be holding at about the same level as last year. The decrease to date this year is in the order of 2%.

The question now is whether U.S. consumption will settle close to the historic level over the short term.

If it does, U.S. consumption would increase by a total of 360,000 tons for the period 1957-59. If demand continues at current rates—particularly with the high level of inventories now—it could be lower, possibly increasing only 180,000 tons over the next two years or an increase of about 1.5% annually compared with the historic level of 2%.

That doesn't look too rosy a picture compared with the sharp, unexpected and unprecedented 8% or 475,000 tons increase in 1955. But that was the year when the strong demand made a distorted picture of future possibilities.

Estimated potential Canadian full-out production in 1958 would be 6,916,000 tons and 7,262,000 tons in 1959. These figures are arrived at by adding the estimated annual rated capacity at the beginning and end of each year and dividing by two.

This production might be channeled into these supply areas:

In 1957, demand from domestic sources is estimated at 500,000 tons, increasing to 510,000 tons in 1958 and 530,000 tons in 1959. That would leave potential sales elsewhere of 6,416,000 tons in 1958 and 6,732,000 in 1959.

The U.S. is currently taking 79.5% of Canadian shipments. In 1956, it took 81.1%; 1955, 81.3%; 1954, 81.7%; 1953, 84.8%.

Assuming the U.S. will continue to take about 80% of our shipments, 5,132,800 tons would be shipped there in 1958 and leave 1,283,200 for shipments elsewhere.

This means that a 42.5% increase in overseas shipments from the estimated 1957 level of 900,000 tons would be needed to sell all our potential tonnage.

In the first seven months this year, Canadian export shipments are up little more than 2% over the like 1956 period. But they did jump a sharp 7% in July this year when it appeared an aggressive sales campaign by producers was beginning to pay dividends. True, it was small compared with total tonnages but very significant in terms of possibilities.

Another important feature in the July sales gain was that increases were not confined to any one market. The British Isles, Central and South America, other European and Balkan countries, Africa, all took more Canadian newsprint.

There are many variables in the foreign market picture, notably currency difficulties, but with the increase in literacy and expansion of their economies, overseas countries should be in a better position to take more newsprint which they will need.

Assuming overseas markets don't take more than one million tons next year, the apparent surplus amounts to only 283,000 tons or 4% of 1958 estimated capacity.

That's a good figure indeed although it is perhaps high in the light of current operating ratio in July of 95.1% (98.8% in the first seven months) but more particularly because of new U.S. capacity in being or installed.

By 1959, U.S. capacity is expected to increase to 2,360,000 tons, 17.6% higher than 1957 capacity of 1,921,000 and a one million ton jump over 1955.

This means that U.S. mills could theoretically supply about 33% of estimated 1959 U.S. consumption of almost 7.2 million tons. Its exports are expected to level out at about 150,000 tons annually — not a vital factor in consideration.

Currently U.S. imports from Europe are running 46.2% below last year when a substantial amount of tonnage was purchased at high spot prices from abnormal sources because of the shortage in the early part of that year.

In the first seven months this year, imports into the U.S. from Europe amount to 96,761 tons, so that it looks as though imports for the full year will be more in line with the average annual imports of 145,000 tons between 1953 and 1955.

So it seems U.S. exports will fairly well balance imports to and from countries outside North America in the next few years.

If U.S. mills supplied one third of that market in 1959, on the surface Canadian supplies to the market would drop to 66% compared to the approximate 75% it now supplies.

Based on Canada's estimated annual output of 7,262,000 tons in 1959 — assuming full capacity — this country would supply only 4.8 million tons to that market instead of roughly 5.8 million tons, a drop of one million tons over the next two years.

There's little likelihood that U.S. mills will actually supplant Canadian supplies to that extent.

Much of the new capacity is coming in the U.S. South. By 1960, it's estimated, Southern newsprint capacity will be 1.1 million tons.

While Southern newsprint has competitive advantages in selling in that region, it faces the freight rate problem in shipping north. It is also significant that Canadian newsprint is still being sold in the South (largely where the paper can be brought in by water).

Most publishers don't like to put all their eggs in one basket. They want several sources of supply if possible.

Most newsprint is sold under long-term contracts of five to 10 or 15 years. Prices are not set for the full run of the contract but at the time of shipment so that they are more or less in line with the current general contract price. If the price is right, other factors being equal, publishers could be expected to go along with their old suppliers.

During the current year, operating ratios of mills in both countries have moved at about the same level—currently 97% of capacity in each. It is expected the levels will remain comparatively close in the days ahead.

Although Canadian mills have been boosting their shipments to the U.S. each year, they have been supplying a smaller percentage of total U.S. supply. This trend might be expected to continue.

For the six years from 1948 to '54 inclusive, Canada supplied 79.5% of U.S. total. In 1955, Canadian percentage of the total was 77%, dropping to 74% last year and 73% in the first seven months of this year.

In the same period, U.S. mills have increased their share of the U.S. market from 16% to 25%. European mills' share has decreased from 5% to 2%.

European supplies likely will continue at the present level for some time, so that if U.S. mills continue to make gains domestically it will be at the expense of Canada unless the demand became so strong that supplies from both sources are absorbed as quickly as they can be obtained.

The report of the U.S. Committee on Interstate and Foreign Commerce suggests U.S. import requirements between now and 1959 may decline to less than five million tons. It foresees a 500,000-ton drop in foreign newsprint between 1956 and 1959.

How good this estimate proves, remains to be seen. The Canadian Pulp & Paper Association in its report to the Gordon Commission only last year estimated demand for Canadian newsprint in the U.S. might be 5,250,000 in 1960. As it turned out, this figure was nearly reached in 1956 when about 5,230,000 tons were shipped there, slightly higher than estimates for 1957.

Over the longer term, demand projections appear to be fairly well in agreement and very favorable to the industry's growth.

The American Newspaper Publishers Association estimates newsprint requirements in the U.S. by 1965 will be 8.6 million tons. The U.S. Committee on Interstate and Foreign Commerce estimates U.S. requirements in that year would be 8,250,000 tons.

The Canadian Pulp & Paper Association estimated a 1965 demand for Canadian newsprint from all sources of 8.3

The outlook is good for continued increase in newsprint demand. Publishers have successfully met the challenges of other media like television and radio and last year accounted for 33% of total advertising dollar volume.

The industry expects to continue to grow and the demand for newsprint to increase as the nation reaches higher levels of population, economic activity and intellectual attainment. In other markets, too, there is every prospect of growth.

Canada Leads the World

Here are world production figures for newsprint:

Country	1935-39 Av.	1954	1955	1956	1957
Canada	3,336,786	5,984,207	6,190,647	6,500,000	6,550,000
U. S. A.	907,804	1,211,156	1,552,294	1,750,000	1,875,000
Argentina	0	28,000	16,000	22,000	27,000
Brazil	4,000	40,000	33,000	33,000	33,000
Chile	4,350	13,619	12,500	14,000	28,000
Peru	0	neg.	neg.	neg.	neg.
Britain	961,800	685,800	694,158	728,000	740,000
Ireland	0	0	500	500	11,000
Finland	436,125	492,863	589,825	673,000	731,000
Norway	205,500	173,961	183,415	187,000	202,000
Sweden	299,015	372,962	399,364	435,000	466,000
Austria	70,550	116,410	137,122	175,000	175,000
Belgium	51,820	56,690	58,000	72,000	110,000
France	397,000	422,000	355,000	330,000	335,000
German Republic	216,000	250,650	270,951	314,000	295,000
Netherlands	99,285	114,000	117,000	128,000	150,000
Portugal	2,000	1,699	5,000	16,000	17,000
Switzerland	34,500	66,000	64,223	62,000	77,000
Greece	0	0	0	1,000	1,500
Italy	74,500	140,900	158,250	180,000	220,000
Spain	27,600	44,000	44,000	44,000	44,000
Turkey	0	8,300	8,600	9,000	9,000
Yugoslavia	0	0	5,500	16,000	22,000
Israel	0	3,250	3,300	3,500	3,500
India	0	0	2,870	10,000	20,000
Japan	406,200	495,681	507,042	578,000	646,500
Republic of Korea	In. Japan	6,597	7,637	9,250	10,000
Taiwan (Formosa)	In. Japan	4,500	5,000	9,000	10,000
Australia	0	78,861	85,210	88,000	88,000
New Zealand	0	0	2,700	50,000	84,000
Sub-Total	7,534,835	10,812,106	11,509,108	12,437,250	12,990,500
Communist Bloc	609,000	1,042,000	1,104,000	1,150,000	1,200,000
World Totals	8,143,835	11,854,106	12,613,108	13,587,250	14,190,500

1956-57 estimated
Neg.: Exact tonnages not available but known to be small.

1,650,000 New Tons of Newsprint

Following are new newsprint machines coming into production in North America, including several which are already operating:

			Expected	
CANADA				
Ontario-Minnesota	Kenora	No. 10	Feb. 1957	90,000
Powell River	Powell River	No. 9	Mar. 1957	90,000
Elk Falls	Duncan Bay	No. 2	Mid 1957	50,000
MacMillan & Bloedel	Port Alberni	No. 1	Mid 1957	100,000
Great Lakes	Fort William	No. 3	Mid 1957	100,000
Abitibi	Fort William	No. 3	Mid 1958	100,000
Great Lakes	Fort William	No. 4	Mid 1958	100,000
MacMillan & Bloedel	Port Alberni	No. 2	Mid 1958	100,000
Donohue Bros.	La Malbaie	No. 3	Mid 1958	30,000
U. S.				
International Paper	Mobile, Ala.	No. 1	Jan. 1957	115,000
Bowater Southern	Calhoun, Tenn.	No. 3	Jan. 1957	110,000
St. Croix	Woodlands, Me.	No. 3	Mid 1957	45,000
International Paper	Pine Bluff, Ark.	No. 1	End 1957	130,000
Southland	Lufkin, Tex.	No. 4	End 1958	75,000
Coosa River	Coosa River, Ala.	No. 3	End 1958	135,000
Bowater Southern	Calhoun, Tenn.	No. 4	Early 1959	100,000

Announcements of "speed-ups" or improvements in existing equipment, some of which are already in effect, include the following:

Bowaters Newfoundland	30,000
Consolidated	55,000
Mersey	25,000
Spruce Falls	40,000
St. Lawrence	30,000

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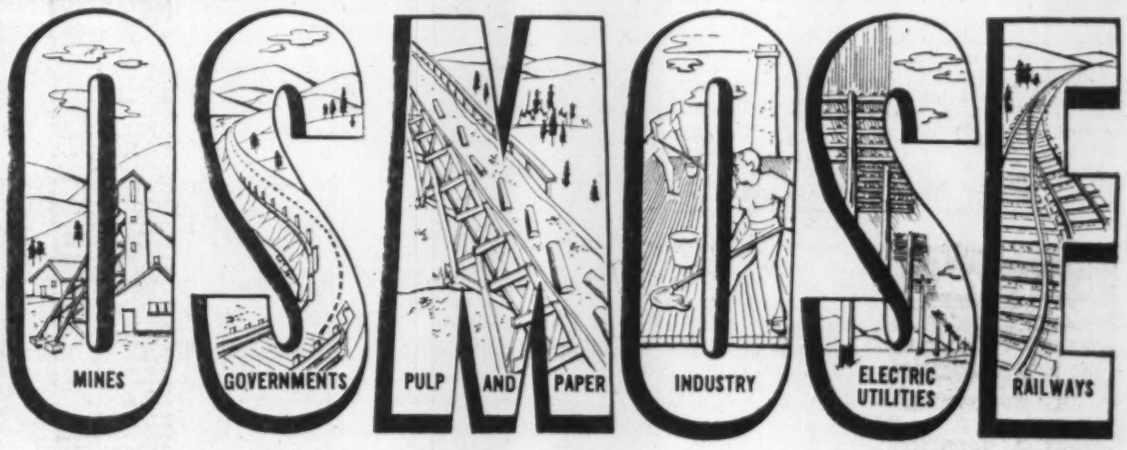

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PULP & PAPER INDUSTRY OF CANADA

Market Pulp Is Key To Earnings

Demand for most paper mills' major nonpaper product —market pulp—is one of the key factors in the outlook for industry earnings.

A few companies in Canada produce pulp only for sale to other users, in Canada and in foreign markets.

Most, however, make pulp for their own use as raw material for paper and paper products. Any not needed in this converting operation is made available to outside buyers.

When market pulp demand is strong and prices are good, this "sideline" operation makes an important contribution to earnings. For the newsprint companies, for instance, the important declines in net profit in the past decade have reflected declines in demand for market pulp more than lower newsprint demand.

Higher costs of wood, labor, other raw materials and transportation, plus losses in revenue when the premium rose on the Canadian dollar, have all contributed to a squeeze on newsprint earnings. However, there have been increases in price to help offset this.

Some companies have been reducing their dependence on sales of market pulp.

Consolidated Paper, for instance, uses almost all the pulp it produces now, although formerly it used to have a fair volume of pulp for sale. **MacMillan & Bloedel,** one of the few companies which had been selling all their pulp output, is now bringing into operation newsprint and paperboard facilities. These will consume part of the pulp output formerly sold.

The longer-term growth in demand for pulp appears certain enough. But in the immediate future, the growth in capacity still going on raises some question about the ability of the market to absorb supplies which will become available.

New Capacity

This year, about 500,000 tons in new North American capacity will be available to world markets and a like amount will come in during 1958.

This is the equivalent of an annual increase of about 4% of the 1956 world supply of market pulp (12 million tons), and another 4% in 1958. In addition, of course, there is more pulp becoming available abroad.

Canada exported nearly 2.4 million tons of chemical and groundwood pulps last year and most of our "eggs" are in the U. S. basket. Since 1950, when shipments to the U. S. amounted to 92% of total export, our annual average export there has amounted to about 80%.

Exports of wood pulp from Canada to the U. S. last year amounted to 1,955,000 tons, of which about one million tons, or nearly 50%, was strictly market pulp. The remainder was pulp produced in mills owned or controlled by the U. S. paper companies to which the pulp was being shipped.

One of the key questions in the U. S. market for Canadian producers concerns the trend in consumption of pulp by integrated and partially integrated paper producers, compared with use by non-integrated paper producers.

Integrated mills are those which produce all their own pulp; non-integrated those which have to buy all their pulp. Some, of course, produce some pulp, buy the rest.

Market pulp requirements of non-integrated paper producers will presumably increase as they expand their facilities for paper production. This represents about 54% of total demand and represents an area in which there is potential modest growth in prospect.

But what will happen to the 46% which goes to integrated and partially integrated pulp customers? These mills are putting emphasis on new pulp facilities of their own, rather than on purchased supplies. It is possible for the next few years that the loss in sales to these customers will tend to offset increases that may reasonably be anticipated in the requirements of non-integrated pulp consumers.

So, it seems possible that there won't be much change in total business done with the U. S. paper industry for the foreseeable future.

A U. S. study this summer estimated total imports from Canada to the U. S. will remain at a level of about two million tons for 1958 and 1960 because of the rapidly growing U. S. pulp capacity. However, over a longer period, the study assumes that the growth trend evident from 1950 through 1956 would continue to 1965.

Canada exported 1,694,444 tons of wood pulp to the U. S. in 1950, increased exports to 1,868,805 by 1955 and 1.9 million tons last year.

An important point in the current picture is that new capacity under way has not been geared to the growing domestic requirements in North America. In fact, the U. S., while still the world's largest market, has declined relatively as a factor in world demand since World War II and its physical requirements have not averaged any more than prewar demand.

The Changing Pattern

The recent North American capacity increase has been based mainly on changes in the pattern of world trade in paper grade pulps.

The last major test of the ability of the industry to adjust to trade conditions was in 1954 when 500,000 additional tons of market pulp capacity was brought into operation in North America. This marked the change in traditional pattern.

Until that year, North American supply expanded just about enough to fill the gap created by the withdrawal of overseas pulp from the U. S. market in favor of growing markets in other parts of the world. Since then, growth in export demand for North American pulps has accounted for the growth in production.

The fact that world markets were able to absorb this tremendous growth in 1954 provided, not only justification for expansion under way, but every prospect of the market absorbing it, if not in the near-term, certainly in the longer term.

Although the million-ton capacity increase in North America in 1957 and 1958 is substantial, in terms of the 55 million-ton world output, it doesn't look particularly large.

One reason is that scheduled increase in productive capacity in many phases of the paper industry is thought to be far greater percentage wise. In addition, this new market pulp is the first major expansion in world market facilities since the last half of 1954. That means, over a period of four years, one million tons of capacity will have been added to world market pulp supply.

An interesting study of trends in various grades of paper was recently made by the Committee on Interstate and Foreign Commerce in the U. S. It appraised each grade group of paper and board individually with reference to future logical expectations in pulp ratios by grade of pulp for each grade group of paper and board. It found these trends:

- For coarse and special industrial papers it was assumed bleached kraft pulp would partially replace use of unbleached kraft pulp. In this group, it said, there appears to be an "upgrading" in the brightness of certain coarse papers for such uses as wrapping and bags so as to adapt these papers better for advertising printing.
- In sanitary and tissue papers, the growing trend toward higher quality and brightness in facial tissue, towels, toilet tissues, and napkins will mean use of a higher ratio of white pulp and a declining ratio in groundwood pulp.
- For container board, the trend in the past 10 years has been toward great use of unbleached kraft pulp with a declining use, in percentage terms, of waste paper.
- Use of certain types of shipping containers, with white outside liners, is growing. This will mean a continued rise in the ratio of white pulp. In corrugating medium, use of semi-chemical pulp is expected to continue upward.
- In special food board, there are indications of a somewhat larger proportion of bleached semichemical pulp, with the "white" pulp ratio declining slightly.
- In building boards, many producers are installing semi-chemical pulp facilities. Thus, it is very likely there will be a decline in the ratio of groundwood pulp.

White pulp comprises bleached and unbleached sulphite, bleached and semi-bleached kraft and soda pulp. The grades of pulp grouped as "white" pulp have been considered substantially interchangeable and probably will become more so between now and 1965.

In the current Canadian market, demand for bleached kraft and bleached sulphite has shown continued growth. But the unbleached grades are relatively soft, In fact, for unbleached sulphite the long term trend seems to be downward. In general, upgrading of all grades of paper, particularly in packaging, has resulted in strong demand for bleached grades.

Rayon Pulp Soft

One of the soft spots is in dissolving pulp, used largely for rayon production. Capacity of the North American continent is substantially larger than present demand for this grade of pulp.

In 1956, North American capacity was about 1.9 million tons and the industry manufactured 1,350,000 tons, leaving 600,000 tons of unused capacity. There will be no change in capacity this year but in 1958 two mills are scheduled to be completed and they will add about 300,000 tons to total capacity. Even now, some mills are operating at about 85% of capacity on a five-day instead of a six-day schedule.

Viscose rayon and acetate have encountered increasing competition from several new n n-cellulosic synthetic fibres. A notable example is tire cord which was dominated by cotton and later rayon. Although, it is believed consumption of high-tenacity-rayon tire cord will be important for a number of years at least (last year, rayon still accounted for 84% of tire cord), nylon is making heavy inroads.

In general, the newer synthetic, man-made fibres are more costly than chemical cellulose fibres. As long as this situation continues there would appear to be many use areas where lower cost fibres would continue to hold their position.

In the area of fabrics and clothing, shifts in consumers' tastes in acceptance probably will have an important bearing on the relative consumption of different fibres, whether natural or synthetic.

More Sales Overseas?

One reason for optimism is the rapid growth in overseas consumption of dissolving pulp.

In North America, living standards have risen to the extent that many people can afford more expensive products but there is a feeling this situation is not typical in many foreign countries. As a result, it seems that for a long time it will be economic for them to import dissolving pulp for the manufacture of rayon and acetate for use in textiles.

In this field, the dissolving pulp industry continues to work closely with major fibre consumers and research efforts to find new uses and applications for rayon and acetate. With continued improvement in performance of chemical cellulose fibres, they are expected to remain competitive with natural fibres. One example is rapid increase in use of rayon and acetate in carpeting and rugs in the last few years.

Production, consumption and use of Cellophane over the past three decades has increased greatly. From most indications, including competition from new films, outlook appears to favor continuation of past growth. As regards cellulose plastics, it seems reasonable to expect future demands for these materials to increase but probably at a slightly lower rate than previously.

But with the over capacity of pulp generally in North America, companies have had to intensify their sales efforts abroad. The kingpins in the wood pulp export market are Canada, Sweden, Finland and Norway. Other countries, notably the U. S. and Austria have exported smaller volumes.

The largest pulp importers have been the U. S. and the U. K., but other nations, including Germany, France, Belgium, the Netherlands, Italy, Argentina and Brazil, purchase significant tonnage ranging from 100,000 to 600,000 tons a year.

But market pulp production in Europe is expanding. It is estimated to be about 200,000 tons this year and another 200,000 tons in 1958. Sweden alone increased her chemical pulp output by 450,000 tons during the past two years, of which some 300,000 tons was market pulp. This gives total expansion in market pulp capacity for North America and Europe of about 1.4 million tons this year and next.

Market Pulp in Europe

There is no appreciable increase in U. S. consumption of market pulp in sight during the next two years. The European market is more difficult to gauge in terms of consumption because they have many individual markets, each with its own special problems.

Nearly all the new tonnage is chemical pulp and much of it kraft pulp capacity. Of Canada's total market pulp output of almost 2.4 million tons in 1956, only about 268,000 tons was groundwood pulp.

In the chemical pulp field, consumption requirements are going to go up sharply in many countries. For example, it is estimated British import requirements will increase from 1,330,000 tons in 1955 to an estimated 1,615,000 tons in 1960, two million tons in 1965 and 2,515,000 tons in 1970.

Since the U. K. accounts for about 12% of Canadian shipments or around 275,000 tons, if Canada can maintain its relative position, it will pick up substantial new tonnage in the market.

In France, total chemical pulp imports in 1955 amounted to 566,000 tons. This is expected to increase to 689,000 tons in 1958, 825,000 tons in 1960.

The burgeoning economy of West Germany is expected to provide the largest growth in Europe. In 1955, its total chemical pulp imports amounted to 509,000 tons which is expected to reach 620,000 tons in 1960 and 790,000 tons in 1965 and by 1970 to 960,000 tons.

With the tight money market in Europe and uncertainties in international affairs, it could be that North American exports to that market will hold at about the current level over the next couple of years.

But for the longer term, prospects are substantially better. All industry forecasts predict continued long term improvement in demand due to population growth and continued increase per capita consumption.

The common market in Europe is expected to collectively improve prosperity of the co-operating companies in the years ahead which will be much higher than they could attain individually. This should result in the greater demand for many products, including both pulp and paper.

To Canadians, it looks as though there will be an increased need to broaden sales abroad if we are going to keep our mills operating at a high level.

In the U. S., Canada should maintain its position at least.

(Continued on page 52)

1957 Pulp Output and Exports

Here are figures of Canada's pulp output and exports in the first seven months of this year:

	Production 1957	Production 1956	% Change	Exports 1957	Exports 1956	% Change
Dissolving and Special Alpha	232,302	245,700	— 5.5	192,664	205,312	— 6.2
Bleached Sulphite (paper grades)	344,385	405,871	—15.1	224,141	263,875	—15.0
Unbleached Sulphite	1,063,830	1,064,823	....	171,957	216,444	—20.5
Bleached Kraft (paper grades)	499,231	468,630	+ 2.6	399,970	384,823	+ 3.9
Unbleached Kraft	480,485	451,476	+ 6.4	165,028	114,407	+ 4.4
Other Chemical	142,193	135,167	+ 5.2	23,966	26,086	— 8.1
Total Chemical	2,762,426	2,771,667	— 0.3	1,177,726	1,210,947	— 2.7
Mechanical (Groundwood)	3,335,830	3,278,169	+ 1.7	128,777	150,318	—14.3
TOTAL ALL WOOD PULP	6,146,668	6,106,558	+ 0.6	1,310,523	1,368,114	— 4.2

Pulp's Future

	1956*	1980†
	tons	
U. S.	1,919,634	3,669,000
U. K.	244,163	634,000
Commonwealth	12,000	....
Other Europe	76,617	315,000
Central, South America	24,546	120,000
Asia, Africa, Far East	97,050	143,000
	2,374,010	4,881,000

*Source: DBS Exports of Canada, December, 1956.
†CPPA brief to Gordon Commission.

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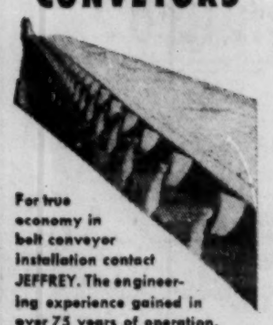

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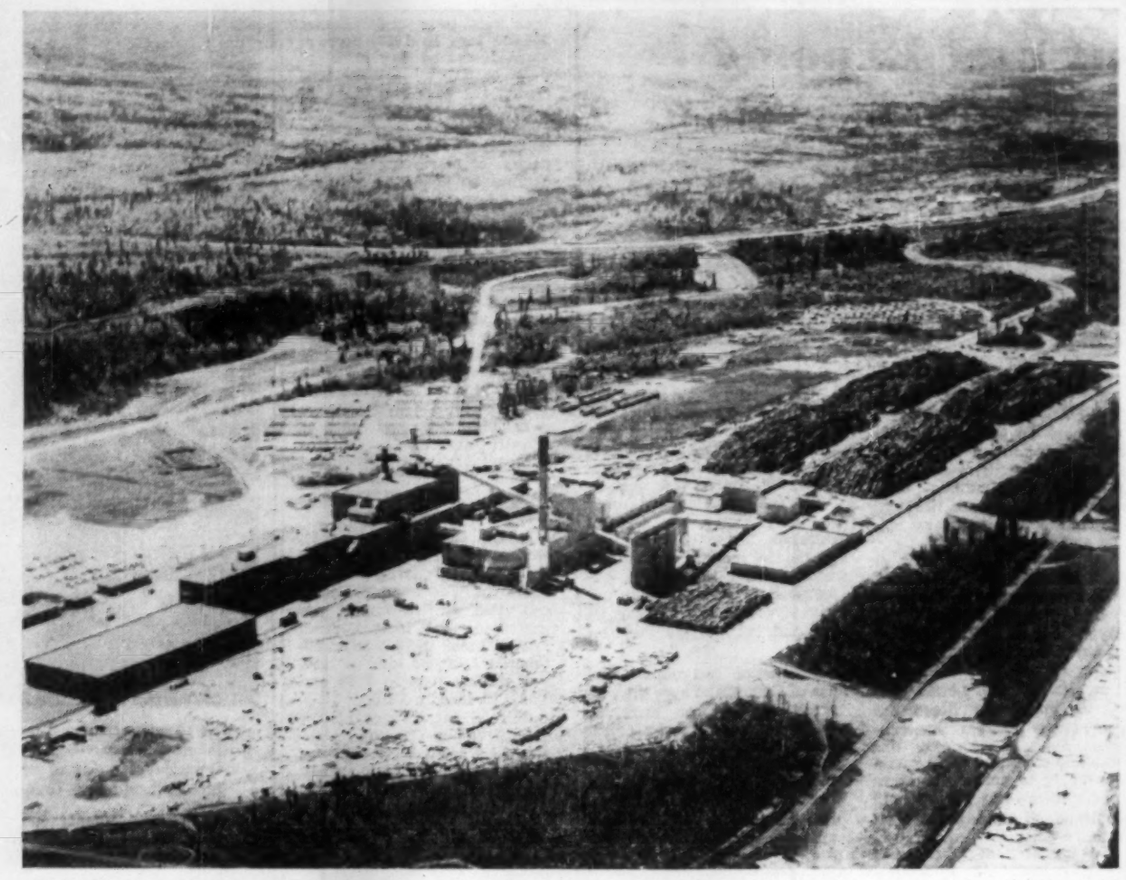
Prairies Seek Bigger Pulp Share

Start-up this year of Alberta's first pulp mill, and an expansion program at Manitoba's only newsprint mill, has directed renewed attention at the prairie provinces' pulp and paper potential.

Several projects are in various stages of investigation, but none has materialized as yet.



THIS IS ALBERTA'S first pulp mill, at Hinton, built by North Western Pulp and Power Ltd. It has a rate capacity of 430 tons of bleached kraft per day.

Alberta

The Prairie drive for a greater share of the pulp and paper industry really got under way two years ago when **North Western Pulp & Power Ltd.** began construction of their $40 million plant at Hinton, Alta.

This was the mill which came into operation early this year. Its annual rated capacity is 150,000 tons of bleached kraft pulp, and is designed for further expansion as markets grow.

North Western is jointly owned by **North Canadian Oils Ltd.** of Calgary, and **St. Regis Paper Co.** of New York.

Production is supported by a perpetual pulpwood supply on nearly two million acres of Crown timberland. An equal amount is available under a 14-year option if mill is extended.

St. Regis is managing operations and will buy a portion of output for use in its own paper mills and sell the rest in the general market. Houses for mill employees are being built by **Athabasca Valley Development Corp.**, a subsidiary of North Canadian.

Recently there has been talk of a second mill for Alberta. **West Forest Products Corp.** is considering construction of a $40 million mill in the White Court area, 110 miles northwest of Edmonton.

Company is undertaking surveys before selecting a final site for mill. It would likely be on the Athabasca River or some suitable site north of there. The region covers 5,000 sq. miles and has large timber limits. Even if present investigations are favorable, it is unlikely construction will begin for some time. President of the company is Gordon McNab and vice-president is Roy Morton, both of Edmonton.

Saskatchewan

Saskatchewan hoped to have a start made on its first pulp mill earlier this year, but the June 1 deadline was not met.

This was the $60 million project of **Waskesiu Forest Products Ltd.** in the Meadow Lake area, 10 miles northeast of Port Arthur. Construction of the $32 million mill was to begin by June 1, and involved building a $5 million railway and a $10 million townsite. Ultimate investment was expected to run to $100 million.

The timber limits cover about 10,000 sq. miles. Under the company's proposed plan, it would exploit about half of this at first to support a rated capacity of 600 tons of bleached and unbleached kraft daily. Ultimate expansion to 1,200 tons and exploitation of whole area was envisaged.

Prime sponsor of this development is R. G. Campbell of Vancouver. A midwestern U.S. firm, which holds the largest single block of stock, was reported to have agreed to buy all kraft output from the mill.

An $8 million chlorine plant near the mill site was to be built by another company.

A second Saskatchewan project also indefinite at the moment, is a $40 million plant in the Meadow Lake area, 150 miles northwest of Prince Albert. This is sponsored by **Ellis Patterson & Associates**, Studio City, Calif. It is based on wood to be taken from a 12,000 sq. mile virgin timber area.

Plans call for construction of a mill with a minimum 300 ton daily production. Provision is made for expansion to 600 tons daily, construction of a second 300 ton mill, and additional timber rights.

The proposed mill is basically intended as a kraft producer but could turn out both kraft and newsprint.

A third mill project is talked of for the Churchill River area, northeast of the power development at Island Falls. There have been enquiries about such a development from both U.S. and European firms, Saskatchewan officials say.

Future development of the industry in Saskatchewan depends upon the supply and demand in foreign markets, particularly the U.S. The excess of pulp capacity over existing demand has left markets in a condition not particularly conducive to construction of new mills.

Manitoba

Manitoba was the first Prairie province to develop its own pulp and paper industry. The most extensive development of its forest resources has taken place in the southern region.

There the main producer is **Manitoba Paper Co.** (subsidiary of **Abitibi Power & Paper Co.**). Company has been carrying out an expansion and modernization program there with result that the two machines can turn out 500 tons daily compared with only 200 tons when operations began in 1927.

Meantime Manitoba is expected to continue to export a substantial portion of its pulpwood output. In recent years it has been exporting about 20% of pulpwood cut in the province to the U.S.

Transport costs now limit pulpwood production in the northern and western parts of the province, but this disadvantage may be partially overcome by the production of peeled wood which loses weight rapidly when left to dry. At present only a small portion of its pulpwood is peeled.

Another way to increase production would be the establishment of barking plants on northern railways where pulpwood, water and power are available.

Recent experiments in the chemical treatment of standing wood to facilitate debarking have shown favorable results. Some forestry experts predict that a large volume of Manitoba pulpwood will be treated this way in future.

Unless additional mills are built to process this wood in Canada both of these developments will increase pulpwood exports.

A substantial expansion of Manitoba's forest industry would take place if an economic use could be developed for the large accessible poplar stands. A small portion of poplar is already being used for paper production. In addition one large mill in the U.S. has begun a program involving extensive use of hardwoods.

Manitoba already has two small mills using groundwood pulp for production of building paper and building board. There are also two plywood mills using aspen poplar.

Although paper production costs for poplar are considerably higher than for softwoods, poplar can be economically used for various types of insulating boards and hardboards. It is particularly suited for the synthetic lumber which is being developed.

Northern Manitoba has large reserves of timber which are not being used because of lack of transport and the distance from markets make them inaccessible under present circumstances. However, it is estimated that the northern forest reserves could support two more pulp and paper mills.

One suggested location is near the Grand Rapids power site on the Saskatchewan River where planned development will provide 300,000 hp. An alternate site is at The Pas. A suggested site for a second mill is Sipiwesk opposite Thicket Portage.

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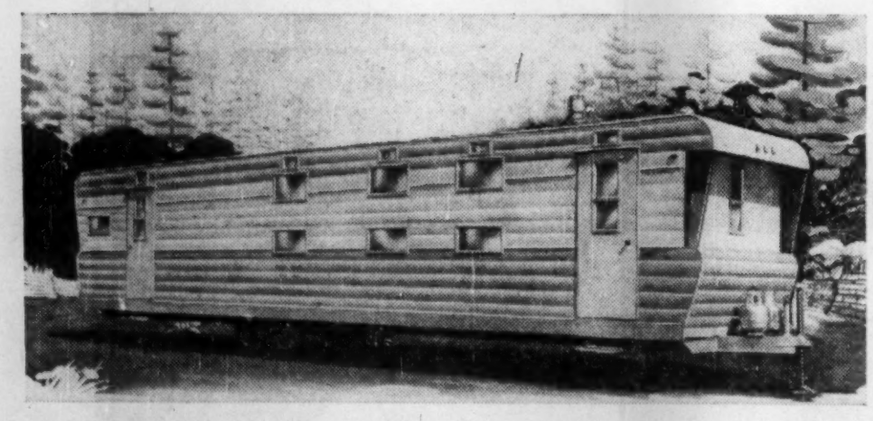

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Pulp Sets Economic Future

(CONTINUED FROM P. 51)

One major advantage is that northern spruce is generally considered to have stronger fibres than either Southern pulp or western U. S. pulp. In general, Canada produces a quality pulp with good competitive advantages.

By 1960, it is estimated that Europe will have a pulp deficit of 290,000 tons. That is, it will take all the Scandinavian production and still be short almost 300,000 tons. In 1970, this is expected to be 1,605,000 tons and by 1980 three million tons.

But in any asessment in the future demand for pulp it is important to take a look at per capita consumption figures of paper. The top five per capita consuming nations are U. S. A., 385 lb. Canada 280, Sweden 197, Australia 167, U. K. 163.

In Europe, the last four are: Spain 18.7, Portugal 14.8, Yugoslavia 10.8, Turkey 4.6.

In the world, the last three are Indonesia 3.5, India 2.0, and China 1.8.

Among countries of large populations, a small increase in per capita usage will mean tremendous increase in total pulp consumed. And new technologies are being developed to increase pulp use.

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Market View of the Industry

Capital Gains Ahead for Paper Stocks?

The pulp and paper stocks, which have taken some of the biggest knocks in the stock market decline, are now getting a careful look from investors.

To some extent at least, the drop in market prices has already discounted some of the "bad news" in the pulp and paper outlook.

The bad news:

- Overcapacity has developed in some sections of the industry, notably newsprint and market pulp.
- The premium on the Canadian dollar has reduced the revenues on export sales, the biggest part of the business for the newsprint and market pulp producers.
- Rising costs of freight, labor and materials are absorbing price increases made in newsprint and fine paper.
- An increase in corporation income tax levied in Ontario, as well as higher logging taxes in Ontario and British Columbia, have reduced profit margins in these provinces.

As a result of these troubles, rnings have been reduced well below the record levels of 1956.

On the other hand, there are some good features evident:

- Pulp and paper companies generally are in sound financial shape. With the boom in the postwar period, working capital has been built up and funded debt reduced.
- Over the longer term, all economic barometers point to continued growth in production and demand.
- Production is still at a level which is high by any previous standard.

Another factor which indicates investors have confidence in pulp and paper stocks is the action on the market since mid-July when stocks turned down from their high averages.

Above Average Recently

While pulp and paper averages have moved down in this period, they haven't dropped as much as many other industrials or utilities. One reason is that investors were aware that surplus capacity was in the offing late last year and there was some selling at that time. Investors taking a longer range look at the industry are evidently holding on to their stocks now.

While earnings are down quite sharply—anywhere from 11% to 45% in the first half on a selected list of eight stocks shown in table—dividends appear to be well protected.

Anglo-Newfoundland Development Co. recently reduced its quarterly dividend to 7½c from 15c, but a large part of its earnings are from base metal operations. The big drop in lead and zinc prices has cut those revenues drastically.

Despite current surplus capacity — notably in newsprint and pulp—there have been no price cuts as yet.

Producers are cutting back production to allow for reduced market demand. As a result, big surpluses aren't being built up as they were in the '30s, when price cutting put most mills into receivership.

Operations "More Normal"

Industry officials regard present operating rates as a more normal level. Production of newsprint is at 97% of rated capacity, and it looks as though it could maintain this rate for the balance of the year. There are few industries that would be unhappy to be operating at such a level.

Newsprint manufacturers have been able to recoup some of the increase in costs through increases in price. The $4 per ton hike effective March 1 was only fully reflected in reports for the second quarter.

Price of fine paper was increased on an average of 5% this summer. This will only show up in last half earnings.

To get a clearer picture of the present situation, take a look at a few of the industry statistics:

—Canadian newsprint production was up 3.1% at the end of July at 3,861,000 tons; shipments to all markets were up 6.6%.

—Total pulp exports for the first seven months were down only 2,000 tons at 179,500 tons.

—Fine paper production was up 5.5% in the first seven months.

It is the mounting pressures of the rising costs, not the relatively small amount of idle or excess capacity, that is reducing profit margins in pulp and paper companies. In the first half of 1957, the average decline in net profits has been about 20%.

Since newsprint and pulps enter heavily into export trade, their financial problem has been intensified by the record premium on the Canadian dollar.

In the first half of 1956, the discount on the U. S. dollar averaged about 1½% compared with around 5% this year. For newsprint exports, the loss on exchange suffered by mills has been nearly $15 million or almost $6 per ton in terms of Canadian dollars.

But in any study either of newsprint or other segments of the pulp and paper industry —and there have been many in the past year—the long term outlook has been regarded as good.

In a recent report on the U. S. industry, The Value Line Investment Survey, New York, points out that U. S. paper and paperboard mills by the end of 1956 had a capacity of 33 million tons, and actual output that year was 1.7 million tons below that figure.

By the end of this year, another two million tons of paper and board capacity will have come into operation. By the end of 1959, present schedules call for a total capacity of 37.5 million tons, 20% above the 1956 production total.

However, Value Line says, expectations that demand for paper and board will again catch up appear to be well founded.

"Although temporary setbacks have been encountered as periods of inventory liquidation have followed the accumulation of excessive working stocks, consumption has demonstrated a persistent tendency to outrun population growth."

U. S. per capita consumption has gained nearly 12 lb. per year on average over the past decade, in 1956 rose to 435 lb. from 418 lb. the year before.

Paper and board provide many advantages over competing materials for packaging. The food industry particularly has made good use of these features since the development of the supermarket. Textiles and other non-food items have lent themselves to special packaging to promote sales at the retail level.

With surplus capacity now available, the mills are in a position to exploit new uses.

As output increases and approaches capacity once more, the overhead item in per unit costs should become less important. The new equipment the mills have been installing can mean more efficient operation.

Dollar Premium, Rising Costs Hit First Half Earnings

	Net Profit for all 1956 $	Net Profit 1st half 1956 $	Net Profit 1st half 1957 $	1st half net 1957 to all 1956 %	Change in net 1st half '57 from '56 %	Earnings per Share — All 1956 $	Earnings per Share — 1st half 1956 $	Earnings per Share — 1st half 1957 $	Recent Price per Share $	Recent Price Times Earnings — All 1956	Recent Price Times Earnings — Prospective 1957**
Abitibi	15,423,827	7,990,684	6,583,235	42.3	—17.6	3.56	1.85	1.51	29	8.1	9.6
Bathurst	3,043,752	1,534,310	841,858	27.7	—45.1	4.44*	2.26*	0.61*	25*	5.6	20.5
Consol. Paper	15,280,969	7,832,438	6,920,146	45.2	—11.6	2.98	1.53	1.35	32¾	11.0	12.1
Donohue Bros.	940,715	498,169	438,801	46.6	—11.9	3.14	0.83	0.73	10	3.2	6.8
Fraser Cos.	6,705,642	3,388,077	2,542,394	37.9	—24.9	3.01	1.52	1.14	24	8.0	10.5
Great Lakes	2,986,129	1,607,118	1,133,463	37.9	—29.4	2.39	1.29	0.89	36½	15.3	20.5
Powell River	10,906,108	5,735,707	4,294,362	39.3	—25.1	2.60	1.37	1.02	36	13.8	17.6
St. Lawrence	9,293,230	4,117,217	3,555,093	38.3	—13.6	1.99	0.91	0.71	13¾	6.9	9.7

*Class B stock.
**Prospective 1957 earnings are based on doubling of first half results. Half year results do not necessarily indicate full year trend.

-between the raw and the finish...

BABCOCK
PROVIDES THE STEAM FOR PROCESSING

The important role that STEAM plays in the production of pulp, paper and paperboard, from the raw material to the finished product, is a familiar story to the men who guide the progress of the industry. Steam generators for the pulp and paper industry become challenging problems for the designers as fuels may vary from coal, oil, wood, bark to waste liquor. Paper processing demands clean, dry steam from boilers that are dependable and economical to operate. B & W boilers have been supplying steam to Canada's major industry for many years. The confidence of the industry in Babcock's experience, research and equipment is proven by the numerous B & W installations.

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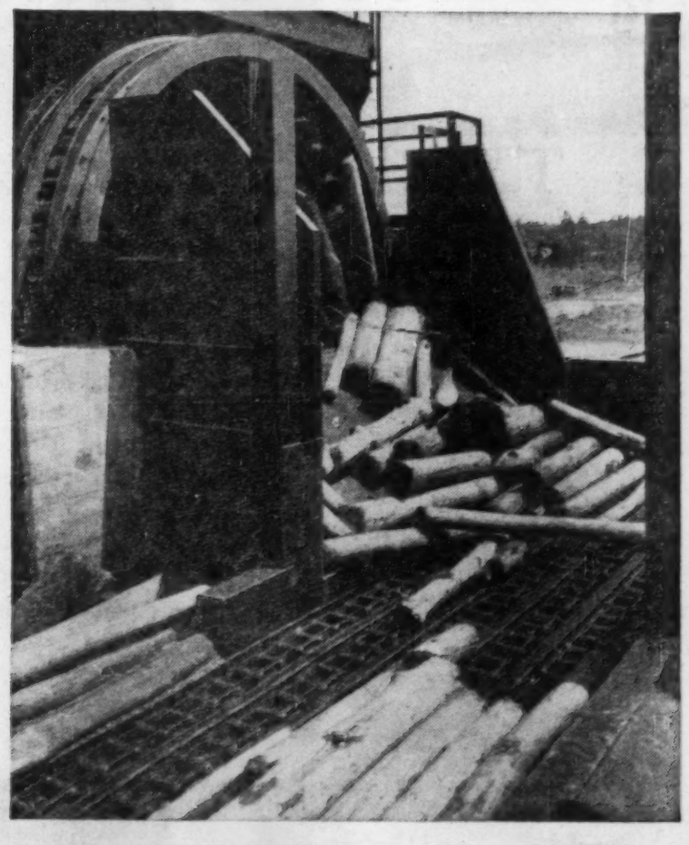

Brake Shoe Company Ltd.
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Joliette Steel Division works under contract agreements with manufacturers of heavy equipment, from original drawings. This assurance of "made-to-measure" parts, with Joliette warranted quality ensures complete satisfaction.

JPP-3

Newsprint and Pulp Price Record

Year	NEWSPRINT (N.Y.) $	GROUNDWOOD PULP No. 1 Canadian $	GROUNDWOOD PULP Scandinavian (dry) $	SODA PULP Dom. No. 1 Bleached $	SULPHITE PULP — Bleached — Dom. No. 1 Bleached $	SULPHITE PULP — Bleached — Foreign Prime $	SULPHITE PULP — Unbleached — Dom. No. 1 Bleached $	SULPHITE PULP — Unbleached — Foreign Extra Strong $	KRAFT PULP — Bleached — Dom. Northern $	KRAFT PULP — Bleached — Foreign Prime $	KRAFT PULP — Unbleached — No. 1 Dom. $	KRAFT PULP — Unbleached — Swedish $
1939	50	21-32	21½-42	†51	†50-54	45-60	†40-45	34-56		50-70	34-45	26-43
1940	50	31-35	40-50	†58-66	†60-72½	60-65	†50-67½	52-75	65-85	70-95	45-70	45-75
1941	50	31-33		†66	†72½	80-90	†63½	70-75	85-90	90-100	70-75	75-80
1942*	50	45-46		66	72½-76		63½-66		86		73	
1943*	50-58	46		66	76		66		86		73	
1944*	58	46-50		66-72	78-86		66-74		86		73	
1945*	58-61	50		78	86	86	74	74	86	86	73	73
1956*	67-84	50-64		76-93½	86-107½	86-107½	74-94	82-94	97-107½	94-107½	73-89	73-89
1946 (Dec.)	84	†70-80	107½-100	105-110	105-115	115-165	85-95	93-133	100-110	110-120	80-95	90-95
1947	84-90	175-85		110-125	115-125	120-185	105-115	120-165	110-135	125-185	95-125	89-145
1948	96-100	180-85		130-135	126-135	165-195	125-130	140-165	155-185	165-190	120-135	127½-147½
1949	100	160-67½		113-130	118-126	118-130	100-130	100-140	118-147½	125-165	82½-125	82½-127½
1950	100-106	170-77½		115-130	118-135	118-160	100-117	100-160	118-141	126-160	82½-120	82½-160
1951	106-116	185-110		140-155	135-160	175-225	140-150	153-200	135-200	180-280	140-155	153-250
1952	116-126	160-100		140-145	145-160	140-225	135-140	115-200	145-190		100-150	100-200
1953	126	160-95		140	140-145	130-140	125-135	110-125	140-147½	137½-142½	95-135	100-105
1954	126	160-95		140	137-140	135-142½	120	114-125	140-150	140-147½	100-135	105-110
1955	126	160-90		140-145	140-145	140-150	120-125	125-130	142-150½	142½-150	100-120	110-130
1956	130	82½-90		142½-145	150	150	130	130-130½	152½-155	155	120-130	125-130
1st Qtr. 1957	130-134	182½-90		142½-145	150	145-150	130	130-130½	155	155	120-130	125-130
2nd Qtr. 1957	134	182½-90		142½-145	150	150	130	130-130½	155	155	120-130	125-130
3rd Qtr. 1957	134	182½-90		142½-145	150	150	130	130½	155	155	120-130	125-130

‡Where two prices are shown, they represent high and low for the period. Prices are in U. S. dollars per air dry ton (2,000 lb.).
†Quoted "ex-dock Atlantic seaboard." †Quoted "delivered."

"Domestic" prices in 1952 are Canadian prices. Prices in the U. S. are not shown as U. S. pulp producers were selling under price ceiling regulations.

*From April 20, 1942, through Nov. 10, 1946, maximum prices for wood pulp and newsprint in the U. S. were fixed by the Office of Price Administration. Prices for European pulp were the same as the OPA maximum prices for domestic and Canadian pulp, plus freight charges over and above a fixed transportation allowance.

Note: There were no quotations for European pulp after September, 1941. Resumption of imports from Europe began in July, 1945. Prices for foreign pulp are quoted "ex-dock New York" or "ex-dock Atlantic seaboard" (except under OPA). Freight charges normally adds $5-10 a ton to pulp prices quoted "ex-dock." From mid-1949 to mid-1950, foreign pulp was quoted "full freight allowed."

Unless otherwise specified, domestic and Canadian prices are quoted "f.o.b. pulp mill" (with varying maximum freight allowances since December, 1946), except during OPA control when quoted "delivered," plus freight charges over and above specified maximum freight allowances. Quoted "full freight allowed" in most cases after July 1, 1949.
Source: U. S. Pulp Producers Association (for past years).

Canadian Newsprint Orders To U.S. Growing Despite Market Loss Gloom

There has been a lot of talk that Canadian newsprint mills will lose big markets to U.S. mills.

In certain market areas, such as the South, area requirements will be increasingly filled by new capacity coming into operation there.

But the over-all demand in the U.S. is growing and there seems little reason to believe Canadian sales there won't increase in the future.

Even with the big increase in U.S. newsprint capacity that has already taken place, Canadian shipments have continued to grow.

And just lately, when overcapacity has developed, mills in both countries have had to cut back output.

In the U.S. Midwest, a major market area, a recent study suggests that in the future consumption pattern, both Canadian and U.S. suppliers can look for substantial gains in the area.

The Midwest differs from the Western U.S. area because its newsprint supply is obtained entirely from mills located outside the area and, with two exceptions, from companies which sell 40% or more of their newsprint supply to other areas. The companies which ship some of their supply to the 12-state area represent about 80% of all capacity on the continent.

The U.S. mills not serving the area are located almost entirely in the West. The Canadian mills not serving the area are in both the west and the east.

Only 34% of the shipments of the mills which do serve the area actually comes into the area. However, the capacity available to it is about 27% of the total North American capacity.

Growing Market

So, tonnage shipments are substantial. The market is growing. Canadian and U.S. competitors look like they are going to have substantial increased tonnage.

The study of the 1951-1960 decade for the inland 12-state area was conducted by the University of Wisconsin School of Journalism and the Bureau of Business Research and Service School of Commerce for Inland Daily Press Association.

The states involved are North Dakota, South Dakota, Kansas, Nebraska, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana and Ohio.

The study finds that for the next three years, 1957 through 1959, additional mill capacity is expected to exceed the normal or long-term annual increase in demand.

Thus excess capacity is expected to increase from 64,000 tons this year to a maximum of 140,000 tons in 1959.

At its maximum, this excess capacity represents about 6% of total capacity. It would constitute a reserve for possible additional demand, for abnormal or short-term increases in demand, or for diversions to other markets.

The possible supply and the expected demand are based on estimates by manufacturers and publishers rather than on actual contracts or other formal provisions. The data on expected demand represent the publishers' estimates of the percentage increase in tonnage which they expect to use by 1960. Data on supply represent manufacturers estimates of the additional increases in capacity which they could provide each year if demand conditions should warrant it.

The expected additional demand would absorb all or practically all of the probable excess capacity in 1957 and again in 1960. It would absorb 70% to 80% of the excess capacity in 1958 and 1959. The possible additional capacity represents almost 40% of the probable increase in capacity in 1958, and 100% or more of the probable increase in 1959 and 1960.

In short, if the expected increase in demand should materialize, there will be little or no excess in capacity unless some part of the possible increase in capacity is brought into production.

On the other hand, possible additional capacity appears to be adequate or more than adequate for the possible additional needs.

Papers Growing

The publishers as a group expect a 24% increase in newsprint consumption between 1955 and 1960. This indicates a total increase in consumption for the period of 480,000 tons or an annual average increase of slightly more than 95,000 tons.

To support this estimate, publishers predicted an increase of 8% in pages and 11% in circulation. The page and circulation predictions do not necessarily mean that growth and circulation will be the dominant influence in future increases in consumption.

The big guns in newsprint consumption in the area are Illinois, Ohio, Missouri and Michigan which together totalled 70% of newsprint consumption in 1951 and for 70% of the increased consumption between 1951 and 1955.

Illinois had 29% of the total consumption in 1955, remained the leading state by a wide margin, despite the fact that Ohio has a slightly larger absolute increase during the period that both Michigan and Ohio had larger percentage increases.

Indiana, Wisconsin, and Minnesota account for an additional 21% of period consumption bringing the seven state total to 91% of the area total.

The study shows a probable excess of supply over demand for newsprint in the area over the next five years. The conclusion is based on a statistical analysis of probable demand. If the considerably larger expected demand predicted by publishers materializes, the tight supply situation will persist unless some of the additional possible capacity is brought into production.

Supply projections in the study are based on reports of planned and possible increases in capacity by newsprint producers now serving the area. The area share of future capacity is estimated on the basis of shipment data.

Demand projections are found to depend primarily on prospect of growth in real or disposable income rather than on growth in the population.

Despite increases in population and circulation in the suburbs, increases in number of pages in the central city papers account for the largest part of the increased demand for newsprint. In a similar way, the largest consuming states account for a large part of the absolute increase in newsprint consumption.

The 12-state area accounts for about 30% of the nation's consumption of newsprint and about the same proportion of its personal income and population. For 1955 the figures are 31.5% of newsprint consumption, 30.8% on personal income and 29.2% on population.

Since 1950, all these factors show a high degree of stability. The outlook is for continuation of this situation with perhaps a slight downward tendency in all phases, compared with the U.S.

Suppliers co-operating in the study included: **Abitibi Power & Paper Co., Anglo-Canadian Pulp & Paper Mills Ltd., Bowaters Southern Paper Corp., Consolidated Paper Sales Ltd., Great Lakes Paper Co., Great Northern Paper Co., International Paper Sales Co., Minnesota & Ontario Paper Co., Price Bros. Sales Corp., Richmond Pulp & Paper Co., St. Lawrence Corp., Spruce Falls Power & Paper.**

Woods to Wrappers it's KVP across the Continent

From Ontario's vast Northland comes the logs that eventually end up in some of Canada's finest packages.

The great KVP Paper Mills on the Spanish River, at Espanola Ontario, produce hundreds of kinds of special papers, for packaging and wrapping. Chances are, that the newspaper you read, the wallpaper in your home, and the food packages in your kitchen, are printed on KVP papers.

From the KVP Mills comes millions of pounds of Genuine Vegetable Parchment too, the purest paper known to man, that protects such delicately flavoured products as butter, margarine and shortening.

Yes, from Woods to Wrappers, it's KVP across the Continent.

The KVP Company Limited

ASSOCIATED COMPANIES

IN CANADA: Appleford Paper Products Ltd., Hamilton, Ont. Montreal, Que.

IN UNITED STATES: The KVP Company, Kalamazoo, Mich. Devon Penn, Houston, Texas. Harvey Paper Products, Shurgis, Mich.

ANNOU NCING!

Increased capacity ratings for Timken bearings

THE Timken Roller Bearing Company announces an increase in the capacity ratings of most series of Timken tapered roller bearings. Increases range up to 39%. Most are in the neighborhood of 10%. Some are negligible.

Permits Use of Smaller Bearings

This increase in capacity ratings makes it possible for many of you to use smaller bearings. Your products can be made more compact. You can save weight. You may be able to reduce the size of your shafts and housings. And you may be able to use Timken bearings in new applications where they have not been practicable in the past.

3 Reasons for Increases

What led to these increases in Timken bearing capacities? Three things: First, a careful review of more than 6,000 different laboratory studies of Timken bearing performance on fatigue life machines. From these exhaustive studies, conducted on an organized, scientific basis since 1924, we keep learning more and more about predicting bearing life. Second, refinement in the method of analyzing these studies mathematically.

Third, a careful review of the life of millions of Timken bearings in the field.

How Much Can This Save *YOU*?

To find out how the new capacity ratings affect the types and sizes of Timken bearings in which you are interested, call your Timken bearing representative or write our Engineering Department. We'll be glad to work with you at the drawing board stage. The Timken Roller Bearing Company, Canton 6, Ohio, U. S. A. **CANADIAN PLANT:** St. Thomas, Ontario. Cable address: "TIMROSCO".

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TAPERED ROLLER BEARINGS
FOR CANADIAN INDUSTRY

NOT JUST A BALL ○ NOT JUST A ROLLER ▭ THE TIMKEN TAPERED ROLLER ▭ BEARING TAKES RADIAL ↓ AND THRUST →←LOADS OR ANY COMBINATION

Canada's Pulp and Paper Mills

COMPANY	HEAD OFFICE	MILL	PRODUCTS
Newfoundland			
Anglo-Newfoundland Development Co.	Grand Falls	Grand Falls	Groundwood, unbleached sulphite (news grade), mechanical, chemical screenings, newsprint, paper boards.
Bowater's Newfoundland Pulp & Paper Mills, Ltd.	Corner Brook	Corner Brook	Groundwood, unbleached sulphite (news grade), newsprint.
Nova Scotia			
Halifax Power & Pulp Co.	Sheet Harbour	Sheet Harbour	Groundwood.
Mersey Paper Co.	Liverpool	Liverpool	Groundwood, unbleached sulphite (news grade), newsprint.
Minas Basin Pulp & Power Co.	Hantsport	Hantsport	Groundwood, building papers, paper boards.
The La Have Pulp Co.	New Germany	New Germany	Groundwood.
New Brunswick			
Bathurst Power & Paper Co.	Bathurst	Bathurst	Groundwood, mechanical screenings, unbleached sulphite (strong), unbleached kraft, pulp, chemical screenings, semi-chemical pulp, paper board.
Fraser Companies, Ltd.	Edmundston	Edmundston	Groundwood, mechanical screenings, bleached sulphite (paper pulp), unbleached sulphite (strong), bleached kraft pulp, chemical screenings, building papers, paper boards.
Fraser Companies, Ltd.	Edmundston	Newcastle	Unbleached kraft pulp.
Irving Pulp & Paper Ltd.	Lancaster Vale	Lancaster Vale	Bleached sulphite (paper pulp).
New Brunswick International Paper Co.	Montreal	Dalhousie	Groundwood, mechanical screenings, unbleached sulphite (news grade), chemical screenings, newsprint, paper boards.
Restigouche Co.	Edmundston	Atholville	Bleached sulphite (dissolving), bleached sulphite (paper pulp), chemical screenings.
St. George Pulp & Paper Co.	Saint John	St. George	Groundwood.
Quebec			
Anglo-Canadian Pulp and Paper Mills Ltd.	Quebec	Quebec	Groundwood, mechanical screenings, unbleached sulphite (strong), unbleached sulphite (news grade), newsprint, paper boards.
The Barrett Co.	Montreal	Joliette	Defibrated or exploded wood, building papers.
Bennett, Ltd.	Fort Chambly	Fort Chambly	Wet machine boards.
Bishop Asphalt Papers Ltd.	Portneuf Statio	Portneuf Station	Building papers.
John Breakey, Ltd.	Breakeyville	Breakeyville	Groundwood.
Building Products Ltd.	Montreal	Pont Rouge	Groundwood, defibrated or exploded wood, building boards.
Building Products Ltd.	Montreal	Ville LaSalle	Defibrated or exploded wood, building papers, paper boards.
Canada Paper Co.	Montreal	Windsor Mills	Groundwood, bleached kraft, semi-bleached sulphite, unbleached kraft pulp, newsprint, groundwood printing and specialty papers, fine papers, tissue, sanitary, special industrial and wrapping papers.
Canadian Glassine Co.	Quebec	Quebec	Fine papers.
Canadian International Paper Co.	Montreal	La Tuque	Bleached kraft and unbleached kraft pulp.
Canadian International Paper Co.	Montreal	Temiskaming	Bleached sulphite (dissolving), chemical screenings.
Canadian International Paper Co.	Montreal	Gatineau	Groundwood, mechanical screenings, bleached sulphite (dissolving), bleached sulphite (paper pulp), unbleached sulphite (news grade), chemical screenings, newsprint.
Canadian International Paper Co.	Montreal	Trois Rivières	Groundwood, mechanical screenings, unbleached sulphite (news grade), chemical screenings, newsprint, paper boards.
Consolidated Paper Corp.	Montreal	Cap-de-la-Madeleine	Groundwood, newsprint.
Consolidated Paper Corp.	Montreal	Grand'Mere	Groundwood, mechanical screenings, unbleached sulphite (news grade), chemical screenings, newsprint, paper boards.
Consolidated Paper Corp.	Montreal	Port Alfred	Groundwood, mechanical screenings, unbleached sulphite (news grade), chemical screenings, newsprint, paper boards.
Consolidated Paper Corp.	Montreal	Shawinigan Falls	Groundwood, unbleached sulphite (news grade), chemical screenings, newsprint.
Consolidated Paper Corp.	Montreal	Trois Rivières	Groundwood, semi-bleached kraft pulp, unbleached kraft pulp, newsprint, tissue, sanitary and wrapping papers.
Donnacona Paper Co.	Quebec	Donnacona	Groundwood, mechanical screenings, unbleached sulphite (news grade), chemical screenings, newsprint, building boards.
Donohue Brothers Ltd.	Quebec	Clermont	Groundwood, newsprint.
E. B. Eddy Co.	Hull	Hull	Groundwood, mechanical screenings, bleached sulphite (paper pulp), unbleached sulphite (news grade), chemical screenings, newsprint, groundwood printing and specialty papers, book, fine papers, miscellaneous fine papers, tissue, sanitary, special industrial and wrapping papers.
J. Ford & Co.	Portneuf Station	Portneuf Station	Defibrated or exploded wood, tissue, sanitary, wrapping and building papers. Paper boards.
Gair Co. Canada Ltd.	Toronto	Montreal	Paper boards.
Gaspesia Sulphite Co.	Quebec	Chandler	Bleached sulphite (paper pulp), unbleached sulphite (strong).
Gulf Pulp & Paper Co.	Quebec	Clarke City	Groundwood
Howard Smith Paper Mills Ltd.	Montreal	Crabtree Mills	Groundwood, groundwood printing and specialty papers, book and fine papers, miscellaneous fine papers, sanitary and wrapping papers.
Howard Smith Paper Mills Ltd.	Montreal	Beauharnois	Book, fine papers, miscellaneous fine papers, tissue paper other than sanitary.
Jonquiere Pulp Co.	Quebec	Jonquiere	Groundwood, special industrial papers, paper boards.
International Fibreboard Ltd.	Montreal	Gatineau	Groundwood, defibrated or exploded wood, building boards.
Lafayette Pulp Paper Co.	Sherbrooke	Sherbrooke	Groundwood.
Lake Megantic Pulp Co.	Lake Magantic	Lake Megantic	Groundwood, mechanical screenings.
Lotbiniere Pulp & Paper Co.	Danville	Danville	Groundwood.
Louiseville Pulp & Wallboard Mfg. Ltd.	Montreal	Louiseville	Groundwood, building boards.
James MacLaren Co.	Buckingham	Buckingham & Masson	Groundwood, unbleached sulphite (news grade), newsprint.
Masonite Co. of Canada	Montreal	Gatineau	Defibrated or exploded wood, building boards.
Megantic Manufacturing Co.	Lac Megantic	Lac Megantic	Groundwood, building boards.
Milmont Fibreboards Ltd.	Montreal	Montreal	Wet machines boards.
Mohawk Corp. Ltd.	Rivere-du-Loup	Rivere-du-Loup	Groundwood.
Nairn Falls Pulp Co.	Quebec	Clermont	Groundwood.
Price Bros. & Co.	Quebec	Kenogami	Groundwood, bleached sulphite (paper pulp), unbleached sulphite (news grade), chemical screenings, newsprint, paper boards.
Price Bros. & Co.	Quebec	Riverbend	Groundwood, unbleached sulphite (news grade), chemical screenings, newsprint.
Pulp and Paper Research Institute of Canada	Montreal	Montreal	Experimental manufacture of pulp and paper.
Quebec North Shore Paper Co.	Montreal	Baie Comeau	Groundwood, unbleached sulphite (news grade), newsprint.
Richmond Pulp & Paper Co. of Canada	Bromptonville	Bromptonville	Groundwood, semi-chemical pulp, newsprint.
Rolland Paper Co.	Montreal	Mont Rolland	Book, fine papers.
Rolland Paper Co.	Montreal	St. Jerome	Fine papers.
St. Lawrence Corp.	Montreal	Dolbeau	Groundwood, unbleached sulphite (strong), unbleached sulphite (news grade), newsprint.
St. Lawrence Corp.	Montreal	East Angus	Groundwood, mechanical screenings, unbleached kraft pulp, chemical screenings, semi-chemical pulp, newsprint, sanitary, wrapping, building papers, paper boards.
St. Lawrence Corp.	Montreal	Trois Rivières	Groundwood, mechanical screenings, unbleached sulphite (news grade), chemical screenings, newsprint.
St. Raymond Paper Ltd.	Montreal	Desbiens	Unbleached sulphite (strong), unbleached sulphite (news grade), chemical screenings.
St. Raymond Paper Ltd.	Montreal	Chute Panet	Groundwood, newsprint.
Ste. Anne Paper Co.	Toronto	Beaupre	Groundwood, unbleached sulphite (news grade), newsprint.
F. P. Soucy Inc.	Chemin-du-Lac	Chemin-du-Lac	Groundwood.
Sterling Paper Mills Inc.	Montreal	Kingsey Falls	Paper boards.
Thurso Pulp & Paper Co. (1)	Thurso	Thurso	Bleached kraft pulp.
J. C. Wilson, Ltd.	Montreal	St. Jerome	Groundwood.
J. C. Wilson Ltd.	Montreal	Lachute Mills	Sanitary and wrapping papers.
Yamaska Mills, Inc.	St. Pie-de-Bagot	St. Pie-de-Bagot	Groundwood, building boards.

New Fancy Transport In Woods

Dobbin and the tractor are becoming out of date in some woodlands operations in which they had been considered essential previously.

A "fancy carriage" has been developed which can dipsy-doodle through the Canadian woods and provides a speedy, economic means to transport pulpwood in the forest.

The "logger" as it is called is a machine which is versatile enough to meet the extreme conditions encountered in moving wood from the stump, and is today in commercial production. It provides a means of stabilizing logging operations and so reduces waste and inefficiency caused by heavy seasonal demands on labor and machinery.

In addition to these savings, it is estimated the logger will cut the direct cost of handling short wood by 30% as compared with conventional methods. Here's how it all began:

In the summer of 1950 a group of men attended a Canadian Pulp & Paper Association meeting at Heron Bay, Ont., to see a demonstration of a mechanical method using tractor-drawn sloops for the handling of a 4-ft. wood in bundles. They were impressed by the possibilities of the method and they proposed that the pulp and paper industry design, build and bring to the point of commercial production a machine engineered for their particular needs.

The pulp and paper companies represented that day appointed a special committee of the woodlands section of the CPPA to direct the work of project engineer Bruce McColl, then a member of this CPPA Woodlands Section staff.

Departing from conventional methods these men conceived and produced a seven-ton vehicle rolling on 6-ft. wheels capable of loading 7,000 lb. of wood, transporting it over such varied terrain as mud, snow, ice, rocks, and muskeg, and delivering it in a bundle suitable for rehandling onto trucks at a greater speed and lower cost than previously thought possible.

In all, five models were built before the logger was considered a production machine. The earliest was simply a wheeled version of the tractor drawn sloops originally demonstrated by **Ontario Paper Co.** The second machine, actually a forerunner of the present logger, abandoned the trailer or sled concept and carries its load on its back. Successive models incorporated further design improvements.

During the winter of 1954-55 a prototype of the present production model outproduced its predecessor, the tractor I sloop, by almost 200%. From this machine, five pre-production machines were built by the Woodlands Section and put into operation by the summer of 1955.

While these machines were purchased and operated by the **Anglo-Canadian Pulp & Paper Mills, Canadian International Paper Co.** and **Ontario Paper Co.**, these companies continued filing reports to the CPPA on machine performance. In all a record of over 7,000 hours under actual field conditions were compiled in this manner.

It Oscillates

The machine as developed by the CPPA was described as being both "articulating and oscillating." That is, its four wheels are always on the ground, thus it is under complete control at all times.

Its universal joint is located midway between front and rear wheels, permitting the front wheels to swing around at right angles to those in the rear. In other words, the new vehicle was steered not like a truck but by means of articulation.

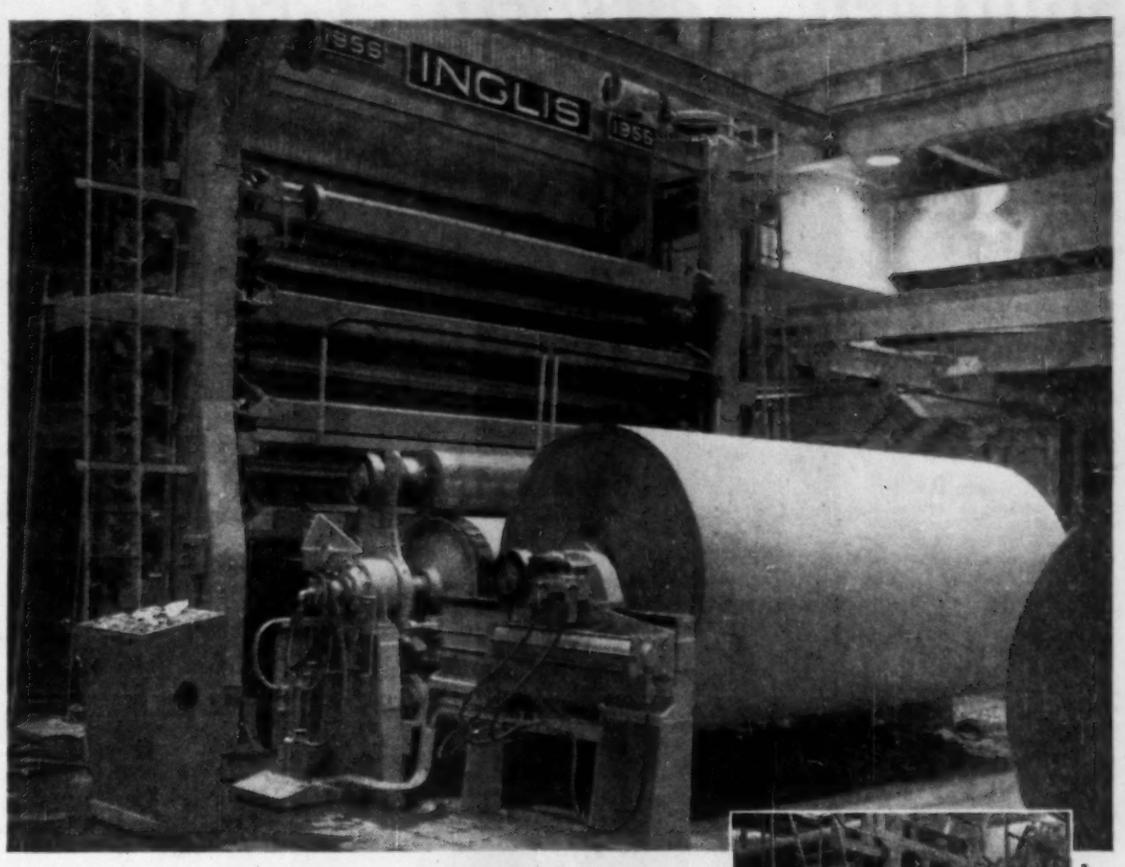
While dumping or loading the operator always faces the load so it is also very maneuvrable. He just swings around on his reversible seat and uses a second dashboard, steering wheel and clutch as well as the lifting and dumping controls all of which are behind him when he is driving the vehicle from stump to landing.

Development of the machine required an outlay of $350,000. This was financed by pulp and paper companies and carried out by the woodlands section of the CPPA.

The project was successfully completed and became a commercial venture with the sale of the manufacturing rights by the CPPA to the **Clark Equipment Co.** in November, 1955.

The logger is now a production tool. Ontario Paper Co. is now operating six machines to move some 40,000 cords annually from stump to landing. CIP, for another, has been trying it out.

By conventional methods, a team of horses can haul 600 to 700 cords per season. These six machines, therefore, replacing some 60 teams of horses. The logger does this not only by the speed with which it handles wood but also because of the remarkable mobility achieved by the designers which allows it to operate year round.



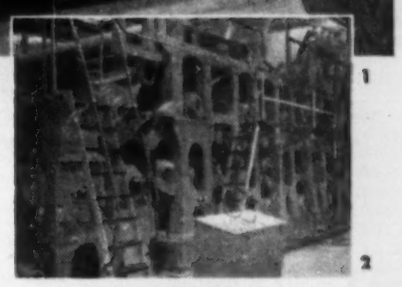
New Paper Machine

Incorporates Unique Features

A kraft paper and board machine designed to operate at speeds between 100 and 2,000 feet per minute with a nominal capacity of 180 tons a day, has recently been installed and is now in production at the new mill at Port Alberni, B. C. The machine, made by John Inglis Co. Limited has a fourdrinier which takes a wire 184 inches wide by 120 feet long. A notable feature is the Pusey-Jones "Rapi-Drape" wire-changing device, which permits wire changing from the tending aisle without removing the fourdrinier from its normal operating position. This reduces very considerably the time required to change the fourdrinier wire.

In the dryer part another improvement is the use of Pusey-Jones steam joints and revolving syphons, which give positive removal of condensate from dryer cylinders, leading to more economical operation.

With these and other special features, this new machine represents the most modern practice in design and construction of paper-making machines.



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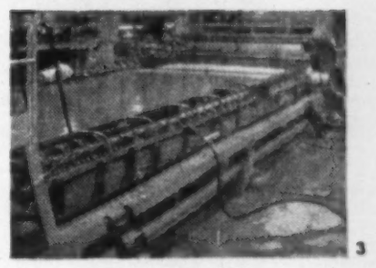

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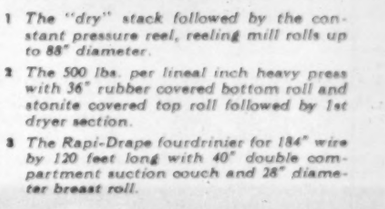

3

1 The "dry" stack followed by the constant pressure reel, reeling mill rolls up to 88" diameter.

2 The 500 lbs. per lineal inch heavy press with 36" rubber covered bottom roll and stonite covered top roll followed by 1st dryer section.

3 The Rapi-Drape fourdrinier for 184" wire by 120 feet long with 40" double compartment suction couch and 28" diameter breast roll.

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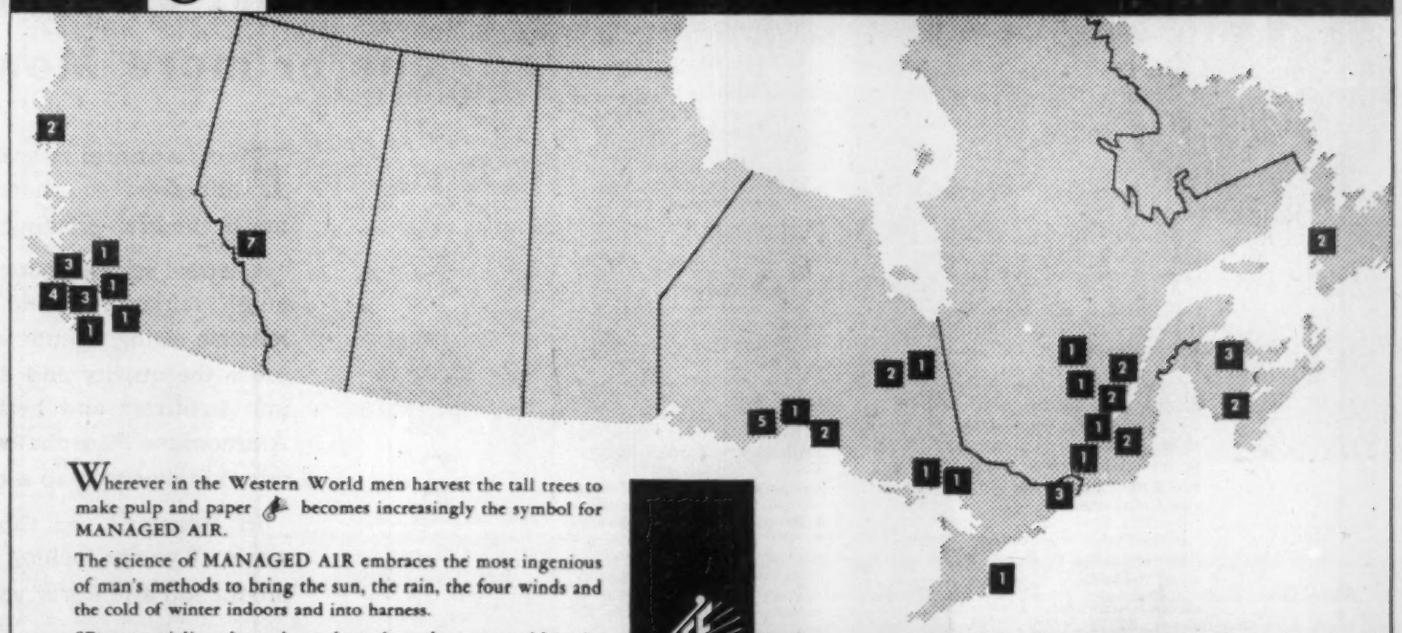

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Southern Newsprint Growth Denies Us Lucrative Market

In the past decade, Southern newsprint production has moved up swiftly in the competition for one of the fastest growing market areas in the U. S.

With a sharp increase in production from 8.7% of the total consumption in the area in 1947 to 47% estimated in 1957, substantial tonnage of Canadian newsprint has already been displaced from this market.

That's one reason why Canadian producers are now training their sights on world markets.

In 1947, Southern U. S. production totaled an estimated 65,000 tons against consumption there of 750,000 tons. In the following 10 years, consumption doubled (estimated at 1.5 million tons in 1957) while production increased more than 11-fold (estimated at 700,000 tons this year).

By 1960, estimates place Southern newsprint capacity at a hefty 1.1 million tons. That's about 17% of rated capacity in Canadian mills last year and about 70% of rated capacity in U. S. mills in 1956.

While the population in the South is not growing at as fast a rate as in the far west, for example, it is still one of the faster growing areas in the U. S.

Based on the U. S. census reports, population was 37,320,000 million in 1947, jumped 4% to 38,850,000 million in 1950 and about 10% to 41.2 million in 1955 from the 1947 level.

But its biggest attraction as a marketing area is the added purchasing power in an area that is coming of age industrially.

What is usually termed "the South" included Texas, Oklahoma, Arkansas, Tennessee, Virginia and the states south and east of these.

It has been proved there are advantages in producing newsprint in the southern states to meet regional consumption needs and so offset higher costs of bringing in northern newsprint.

On the other hand, northern U. S. and Canadian newsprint mills have advantages in meeting the large metropolitan newspaper demands in the northern cities.

A similar situation exists on the west coast. It has not been economical to ship eastern newsprint to west coast markets or vice versa. Then too, water transportation from Oregon and Washington as well as water-borne imports from B.C. to such west coast consuming centres as San Francisco, Los Angeles, and San Diego, is low in cost.

ONE OF THE MOST IMPORTANT phases of modern pulp and paper operations is information on the amount of wood available so that cutting will not exceed growth. A tree is blazed during a forest inventory.

What South Means

But the fact there is substantial new capacity in the U. S. South and additional expansion under way doesn't necessarily mean Canadian newsprint will be entirely knocked out of the Southern market. Mills in Eastern Canada are still shipping to the port cities in the South which they can reach by water transportation. But it is getting more difficult.

The development of newsprint in the South has resulted from two factors:

- Technological developments which made it possible to produce newsprint from the resinous, fast-growing softwoods of the Southern U. S.
- The economy of the South is developing to a point both in population and economic well being where it is a substantial and growing market.

A Canadian producer with a substantial business in the Southern states may be faced with a choice as to his future course of development. He may decide to build a mill to supply his Southern customers or he may seek to place that tonnage elsewhere in more economic markets with lower delivery costs. So far, no Canadian newsprint companies have announced plans to build in the U. S. south.

How fast newsprint development the South will continue beyond 1960 is difficult to measure. Southern pine is a valuable species for pulp and paper making—in some respects more valuable for other products than for newsprint.

Its long, strong fibres make it particularly adaptable for kraft pulps used in paperboard and packaging materials.

This is evidenced by the tremendous growth of this type of product production in the South already.

It is estimated than only 5% of total pulp and paper production in the South at present is newsprint. The remainder is for other products.

Use of Hardwoods

In other parts of the U. S., the future of newsprint production appears to depend largely on recent developments in the use of hardwoods. **Great Northern Paper's** operations in Maine now have an annual capacity of 500,000 tons. But of particular interest is that they are utilizing hardwoods.

Although they have been in operation two or three years, no other producers as yet have gone into straight hardwood production for newsprint although both in Canada and the U. S. a little poplar is used commonly as a mix with other softwoods. Of particular interest in this respect is that **Bowaters Southern** is engaged in pilot plant work to make hardwood pulp suitable for mixing with pine to manufacture newsprint.

The availability of hardwood species has led to a great deal of speculation in research of the possibilities of using them to greater extent for making all kinds of pulp and paper. About 4.8 million cords of hardwood, or about 16% of the total U. S. pulpwood consumed in 1954, was used for pulp and paper.

This quantity is more than twice the amount of hardwood pulp used before World War II and four to five times the amount used in 1930.

Progress has been made in the production of hardwood pulps of better quality by conventional processes — groundwood, kraft and sulphite—and particularly by the newer semi-chemical processes.

The greatest difficulty encountered in processing hardwoods for paper making is that of developing bonding strength in the shorter fibred pulps comparable to that of longer fibred softwood pulps.

The U. S. Department of Agriculture Forest Service, Forest Products Laboratory, in co-operation with the University of Wisconsin, prepared a brief on the use of hardwoods in the manufacture of newsprint in 1955. It found various combinations of different kinds of hardwood pulps might be considered as possibilities for making newsprint.

Small quantities of hardwood pulp in the form of conventional-type groundwood and sulphite pulps can be used with the longer fibred softwood pulps. Larger quantities of hardwoods might be used as semi-bleached kraft pulp and also as part of the groundwood.

Although experiments indicate that a high percentage of hardwood pulps can be used in making newsprint, the report said it might be difficult or impracticable to use such quantities in commercial operations. However, it said it appears that at least 50% of the total furnish could consist of hardwood pulps.

New Problems

The use of new fibre blends will undoubtedly present new problems in paper manufacture, such as low drainage rates of water from fibre and low strength of the wet web of paper.

Longer wire screens for increased drainage time, greater suction box capacity and devices to assist in handling low wet-strength sheets may solve the problems in some instances. One device already in use provides for carrying the wet web from machine wire through the wet presses without depending on the web to carry its own weight from the wire to the presses.

This not only minimizes breaks but permits the running of weaker wet webs or running at higher speeds. The addition of chemicals or binders may be necessary for improving web strength.

Canada still has the great advantage of an existing industry, tremendous growth stands of timber, easy access to world markets, technological know-how, water and power.

But, Southern newsprint expansion continues. **Bowaters Southern Paper Corp.** this year has started up its third newsprint machine at Calhoun, Tenn., boosting production from 200,000 to 300,000 tons of newsprint annually. A fourth machine is scheduled to begin operation late in 1958 increasing total capacity to more than 400,000 annually. The original mill began production in 1954 with an initial annual capacity of 130,000 tons of newsprint.

Total investment at Calhoun by Bowaters Southern will amount to $116 million when the fourth machine has been completed.

The Southern Kraft Division of **International Paper Co.** entered the newsprint field in December, 1956, when production began on the new 105,000-ton machine of its Mobile, Alabama, mill. The newsprint machine being installed at the new Pine Bluff, Arkansas, mill will have a somewhat larger capacity. The latter machine is scheduled to be in operation before the end of this year.

Other producers in the area are **Southland Paper Mills**, Lufkin, Texas, and **Coosa River Newsprint Co.**, Coosa Pines, Alabama.

Formidable Industry

Together, they have fashioned a formidable industry. Southern newsprint capacity in 1955 was 375,000 tons, increased to 500,000 tons in 1956 and is estimated at 700,000 tons this year. At the same time, hardwood pulpwood production in the South is steadily increasing. In 1950, it amounted to 9% of total output, increased to 12% in 1953 and to an estimated 15% last year.

While most of this hardwood entered other phases of the pulp and paper industry than newsprint, it's not inconceivable that at some future date a good percentage might go into such production.

It doesn't look as though that day is immediately at hand, but if efforts in that direction are successful, it would conserve southern pine and conceivably reduce costs, making the competition even tougher for Canadian producers.

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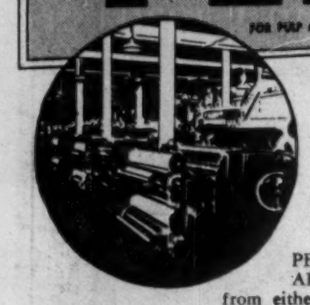

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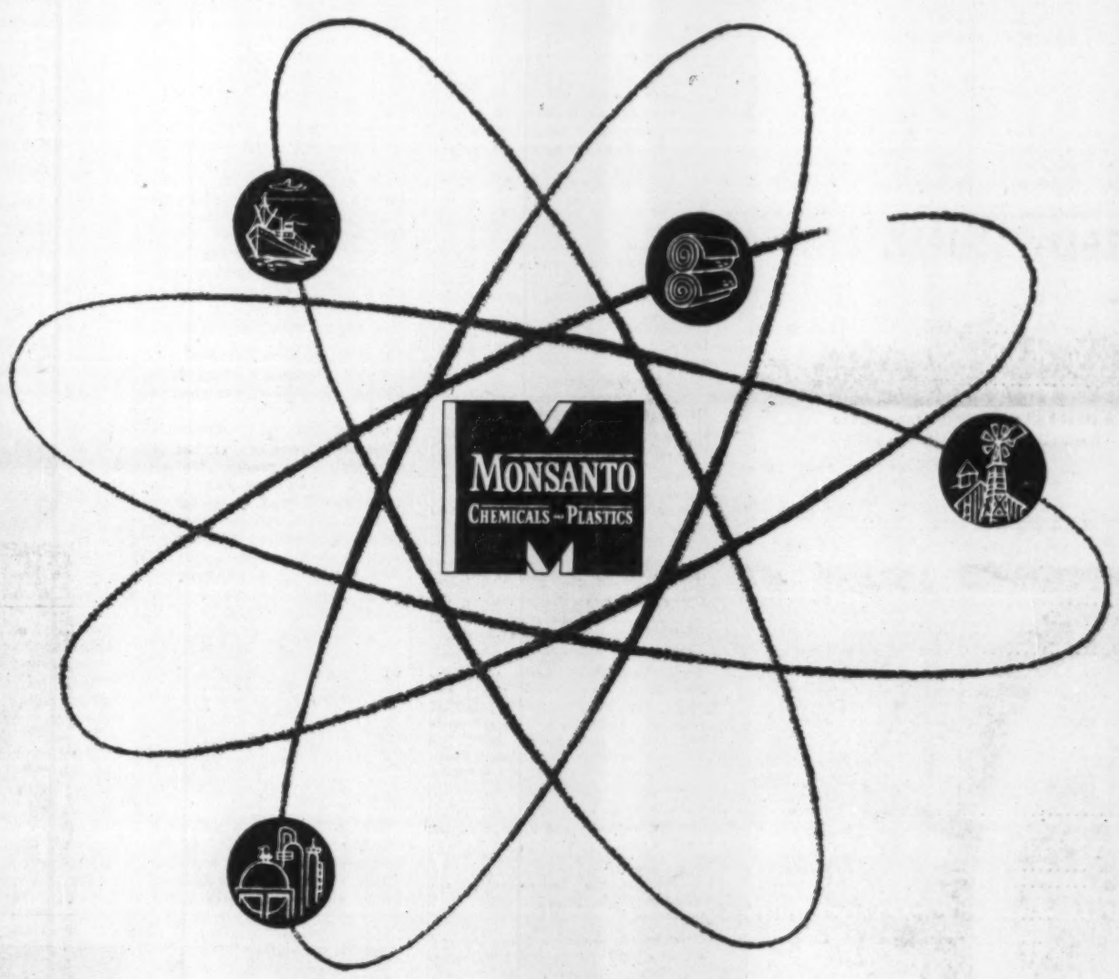

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Hunt World Newsprint Markets Overseas Shipments Jump 6.6%

Now that they have more newsprint capacity than they can use for the moment, Canadian newsprint producers are taking a close, hard look at world market potential.

The current surplus has already resulted in a global hunt for markets which has resulted in a sharp 6.6% jump in Canadian shipments overseas in July and a 2.5% increase in the first seven months.

This has brought shipments to markets other than Canada and the United States to a current level of 13.1% of total compared with an 11% average for the 1954, '55, '56 years and only 8.2% in 1953.

Although tonnages shipped overseas at present are not high—about 900,000 tons annually (1957 estimate)—compared with volume going to the U. S. market, rising demand, probably at a much faster rate than in the U. S., is predicted for other parts of the world as literacy increases.

Currency Troubles

For the short term at least, monetary and exchange difficulties will help depress the buying power in dollars of other countries. This will continue until a solution is found which will make Canadian and U. S. markets more freely opened to goods of other countries—to create buying power for newsprint and other commodities needed from us.

Wood in species and in locations that can be used for economic production of newsprint as well as capital deficiencies in underdeveloped countries impose serious limitations on domestic supply of newsprint in most countries abroad. In addition, competition of other pulp and paper products and other forest industries for available wood supplies is fierce.

With an oversupply situation in both Canada and the U. S., there is no doubt that producers in both countries will be scrambling for markets abroad. The chief question is: Who will supply these?

Canada is already the major exporter to overseas countries. Prewar overseas shipments from this country were equal to almost 25% of output and only the postwar upsurge of demand on this continent along with trading difficulties and restraints overseas have kept down the volume of these shipments since the war.

Despite the anticipated increase of nearly one million tons in U. S. capacity to 2,360,000 tons by 1959 compared with 1955 output of 1,459,000 tons, it doesn't look as though the U. S. will appreciably broaden its market overseas. One reason, of course, is the indicated increase in U. S. domestic requirements.

Substantial increases in production facilities are scheduled this year, and in 1958 and 1959, and point to the possibility of world potential supply exceeding world demand by about 1,450,000 tons in the latter year.

Main Additions Here

The bulk of the new capacity coming in over these years, however, is in North America so that there will be many countries abroad which will still have to import increasing amounts of newsprint as demand increases.

In the world, production potential this year is estimated at 14,486,000 tons, 3.4% higher than demand and indicating an excess of 477,000 tons.

The excess of supply over demand based on global capacity is expected to increase to 7.6% in 1958, an excess of more than one million tons, when world capacity is expected to be about 15.5 million tons.

By 1959, world capacity may reach an estimated 16.3 million tons, 9% greater than estimated demand of almost 14.9 million tons.

How big a market is available overseas?

The most recent detailed analysis of the potential prospects in other countries was prepared in a report of the U. S. Committee on Interstate and Foreign Commerce this summer. Questionnaires were sent to 72 foreign countries which along with the U. S. and Canada account for virtually all the world production and consumption of newsprint.

The British Isles: This is Canada's biggest overseas market. It is currently taking 6.3% of our total shipments, roughly double the 1953 figure.

U. K. newsprint consumers' recovery from the extremely severe wartime restrictions has been long and difficult. Despite limitations imposed by exchange difficulties, imports from Canada have increased sharply and are an important source of U. K. newsprint supply. Between 1950 and 1956 Canadian exports to the U. K. increased from 111,000 tons to about 340,000 tons. A further rise of about 30,000 tons is anticipated this year.

The U. S. report forecasts that U. K. demand will rise by 12.5% from 1.1 million tons in 1956 to 1,350,000 tons in 1959. In the same period, production potential is expected to jump a sharp 23.9% from 710,000 tons in 1956 to 880,000 tons in 1959. On the basis of estimated U. K. exports of 150,000 tons in the latter year, about the same as the level in recent years, the minimum import requirement would be 470,000 tons.

This year Canada will supply about 370,000 tons. It expected to ship about 407,000 long tons but cutbacks were made to help ensure inventories were maintained at a reasonable level for publishers.

The interpretation placed on an agreement reached in respect to reductions involving Canada, U. K. mills and other sources of supply, was that Canada would continue to maintain its relative newsprint supply position in the U. K. market this year and stands to make gains as British consumption increases in the years ahead.

Europe: The U. S. report says demand in continental western Europe is expected to rise by about 18% to nearly two million tons by 1959 over the 1955 level. An increase in output is not expected to match the increase in demand with the result that net import requirements should rise.

The governing factor in newsprint in this area between now and 1959 will largely be consumption in France, Germany, Italy, the Netherlands and Belgium.

The prospects look good. In France, newsprint demand is estimated to rise 25,000 to 30,000 tons per year between now and 1959, reaching 700,000 tons by then.

Western Germany expects a gradual increase of 10,000 tons per year through 1959 when demand should reach 430,000 tons.

Italy expects an increase of 14,000 tons annually and should consume 240,000 tons by 1959.

Netherlands expects an increase of 5,000 tons annually through 1959 when it should consume 145,000 tons.

Belgium demand for newsprint should increase a total of about 15,000 tons between 1955 and 1959.

Other nations in continental western Europe are expected to increase demands for newsprint gradually between now and 1959, following the same general pattern as the above mentioned countries.

However, newsprint capacity in continental West Europe is expected to increase about 260,000 tons between 1955 and 1959 or only 40,000 tons below the increase in demand.

The picture is somewhat distorted if these figures are taken at their face value.

In France, for example, plans have been made to expand production through installation of two 80,000-ton machines in existing mills by 1958 or 1959. But these projects are tied in with the increased use of domestic French hardwoods and it is believed that their economic adaptation to newsprint manufacture is some years away. The potential newsprint from these projects is not calculated to be available between now and 1959.

With demand for newsprint in France expected to continue upward by 35,000 tons a year between now and 1959 when it should reach 700,000 tons, and with little increased production, import requirements should continue upward at about the 35,000 ton rate.

Production of newsprint in Western Germany is not expected to increase materially between now and 1959. There are no plans for new mills or machines, but there probably will be the usual modernization and speed-up of existing mills if it can be achieved at a cost which would merit the expansion in the face of the world surplus situation.

The demand for newsprint is expected to increase about 40,000 tons by 1959 in Germany and import needs should rise about 30,000 tons. In 1956, Western Germany exported about 25,000 tons of newsprint, chiefly to the U. S. This export should disappear in ensuing years.

Netherlands will continue to import even though production will more than equal expected consumption between now and 1959 because the Netherlands mills have a constant market for about 25,000 to 30,000 tons in France and Belgium.

Productive capacity in Italy is expected to reach 210,000 tons by 1959 and the increase probably will keep pace with the 1956-59 demand. Imports should stay at about 30,000 tons annually.

Domestic production in Spain and Switzerland is expected to keep pace with demand.

Latin America: In 1956, this market took just over 24% of Canada's exports abroad and for 1957 the proportion is expected to rise to about 27%. Currently it is running close to 20%, somewhat below that anticipated. In common with overseas markets generally, postwar trade with this area has been hampered by dollar exchange difficulties but the turning point appears to have been 1950 with steady expansions since then.

In 1946, Canada supplied Latin America with 255,000 tons, more than 50% of its total supply. This dropped to 105,000 tons in 1950 but since then there has been steady expansion to a current level this year estimated at about 250,000 tons which represents about 35% of anticipated total Latin American supply this year.

The U. S. study says newsprint capacity in Latin America by 1959 will be 150,000 tons or about double the 1955 production. This 75,000-ton increase, although sizeable, will still leave Latin America primarily dependent upon imports.

If a proposed Chilean mill reaches full capacity by 1959, it could have 15,000 to 20,000 tons available for export and would likely ship it to adjacent countries. This would result in regional net import needs for foreign newsprint of 565,000 to 575,000 tons.

The big markets in that

(Continued on page 59)

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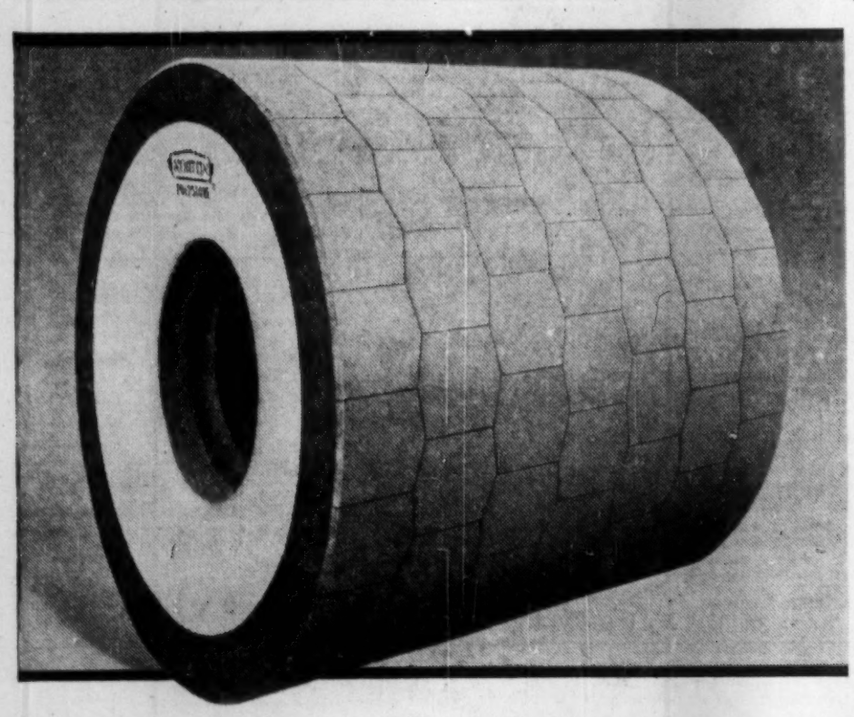

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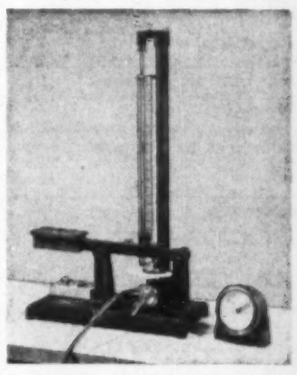

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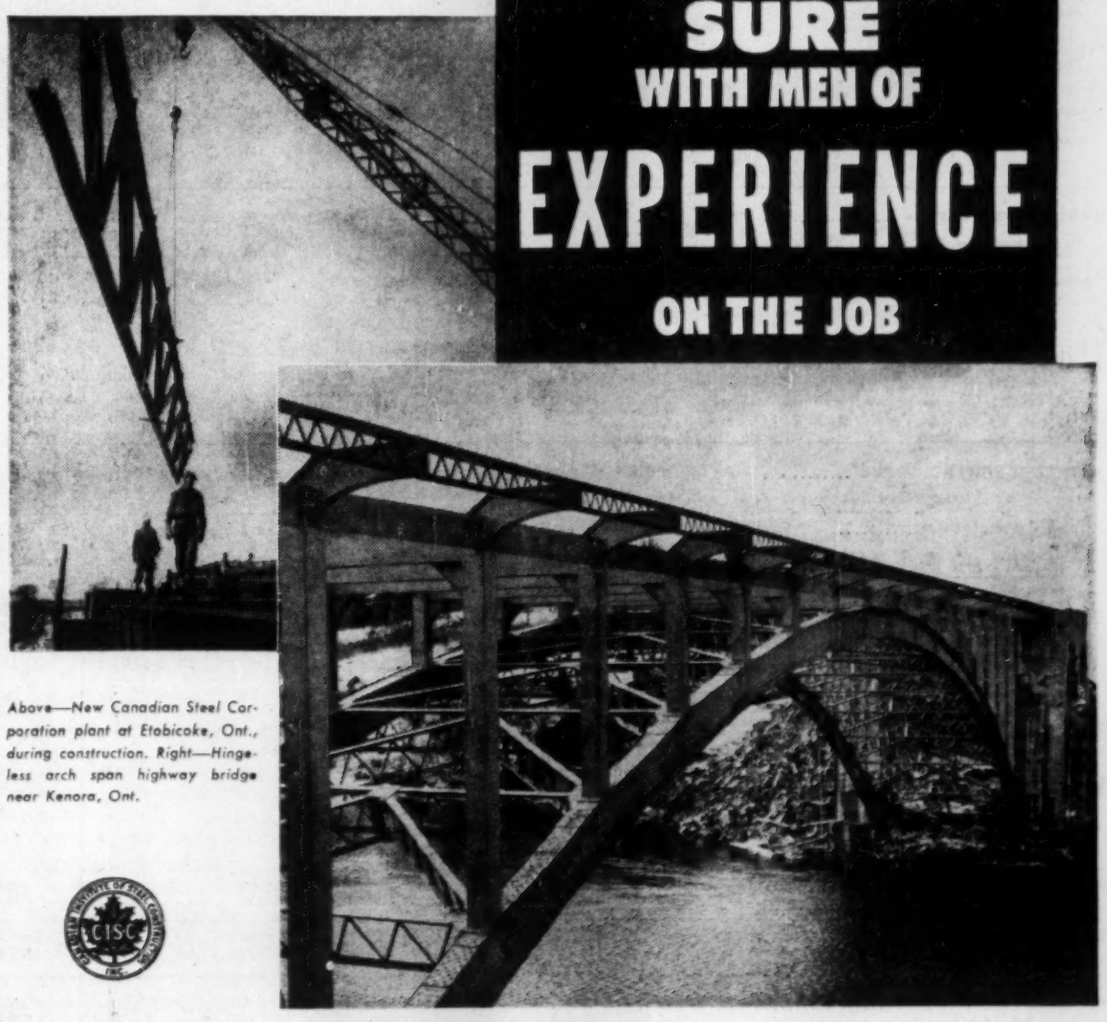

Above—New Canadian Steel Corporation plant at Etobicoke, Ont., during construction. Right—Hingeless arch span highway bridge near Kenora, Ont.

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The Financial Post Statistical Record of Major Pulp and Paper Companies

Newsprint Group

Company	Year	Wood Resources Cords or Sq. Miles	Mill Capacity Annual Tons	Funded Debt $	Net Earn. $	Degree. $	Times Int. Earned After Degree. No.	Income Taxes $	Net Profit $	Earnings per Share Pref. $	Earnings per Share Com. $	Dividends Paid or Pay. Pref. $	Dividends Paid or Pay. Com. $	Surplus for Year $	Working Capital $	DIRECTORS
ABITIBI POWER & PAPER§ ..... †Consolidated.	†1956 †1955	25,000 sq. mi.	777,392	40,598,000 29,060,000	40,480,475 36,836,977	♦7,752,873 ♦7,132,899	26.95 26.11	15,589,000 14,570,000	15,423,827 13,936,026	29.42 25.34	3.56 3.20	1.12½ 1.12½	1.60 1.35	8,157,215 7,698,234	48,256,637 40,807,946	D. W. Ambridge, pres. and gen. mgr.; W. H. Smith, vice-pres.; Allan Graydon, C. L. Gundy, J. S. D. Tory, E. W. Bickle, Toronto; R. H. Reid, London, Ont.; H. J. Carmichael, St. Catharines; T. R. McLagan, Hon. Edouard Asselin, Montreal; J. P. Ripley, New York. Vice-pres.'s—R. J. Askin, C. B. Davis, A. P. Jewett Paul E. Roberts. Vice-pres. & treas.—W. S. Rothwell. Sec.—L. B. Popham.
ANGLO-CANADIAN PULP & PAPER§ .... †Consolidated. *Net including profit on disposal of assets amounting to $1,681 in 1955.	†1956 †1955	9,750 sq. mi.	233,000	14,000,000 14,000,000	15,068,494 14,628,587	♦4,626,602 ♦3,663,617	15.73 23.36	4,695,000 3,058,509	5,101,663 *5,434,388	32.51 33.96	3.68 3.94	2.80 2.80	2.00 2.00	2,128,648 2,457,846	18,840,716 18,943,987	E. M. Little, pres.; W. E. Soles, vice-pres. & gen. mgr.; H. D. Ruthman, sec.; James O'Halloran Quebec, P.Q.; W. H. Howard, Westmount, P.Q.; The Viscount Rothermere, C. H. King, P. G. Walker, London, Eng.; James Cooke, Woddingham, Eng.; E. L. Goodall, Port Arthur, Ont.; T. R. Moore, Grand Falls, Nfld.; H. K. Cudlipp. Treas.—C. H. Smith
ANGLO-NEWFOUNDLAND DEV. CO.• ... †Consolidated statements	†1956 †1955	7,456 sq. mi.	230,000	....	11,482,262 9,994,876	♦2,275,555 ♦2,305,937	....	3,781,000 3,056,800	5,425,707 4,632,139	....	0.99 0.84	....	0.60 0.60	2,126,658 1,335,090	24,049,852 21,373,554	W. H. Howard, chm., Montreal; E. M. Little, pres., Quebec, P.Q.; Philip Gruchy, first vice-pres.; J. S. Goodyear, vice-pres. and sec.-treas.; T. R. Moore, gen. mgr.; Grand Falls, Nfld.; B. C. Gardner, Montreal; The Viscount Rothermere, A. S. Fuller, The Earl of Cromer, London, Eng.; E. A. Sur-sham, Markyate, Herts, Eng.; Grenville Beckett, Redhill, Surrey, Eng.
BOWATER CORP. OF N. AMER.§* ..... ♦Consolidated. *From pro forma statement, after giving effect to increase in capital and issuance of pref. stock. †Of subsidiaries. ♣5% & 5½% pref. stock. ‡5% pref.; on 5½% pf. stk. initial payt. made April/57.	♦†1956 ♦*1955	....	....	†88,813,000 †52,839,068	28,404,000 22,579,253	7,485,000 6,195,032	5.65 5.96	6,941,000 6,787,607	9,809,000 6,538,935	♣19.62	0.92 0.78	‡1.62	0.27½ 0.30	6,467,000 4,018,935	37,430,000 43,764,899	Sir Eric V. Bowater, pres., London, Eng.; G. S. Currie, first vice-pres., Montreal; H. M. S. Lewin, Corner Brook, Nfld.; A. B. Meyer, Greenwich, Conn., vice-pres.'s; Sir John H. Keeling, K. N. Linforth, W. J. Kirwan-Taylor, England; Earle Spafford, Montreal; Alex. Brackenridge, South Orange, N.J. Controller & sec.-treas.—Sam Mann, Montreal.
CONSOLIDATED PAPER§ ..... *On new stock after 2-for-1 split Apr. 30, 1956.	1956 1955	17,641 sq. mi.	791,868	....	33,609,795 29,467,046	♦4,335,209 ♦3,781,071	..... 1,629.30	14,000,000 12,000,000	15,260,969 13,747,019	....	*2.98 *2.68	....	1.45+0.55 †	5,015,859 6,048,247	58,357,209 54,513,795	L. J. Belnap, chm.; G. M. Hobart, pres.; Francois Faure, N. J. Dawes, W. H. Howard, G. M. Todd, C. F. Sise, Hon. C. A. Dunning, H. H. Lank, W. S. Kirkpatrick; Montreal; H. D. L. Gordon, Toronto. Vice-pres. & compt.—George Henderson. Vice-pres.'s—Richard Collins, J. A. Michaud. Sec.—D. J. Glen. Treas.—D. L. Adams.
CROWN ZELLERBACH CANADA ..... ♣From pro forma statement Dec. 31, 1955, including Crown Zellerbach Canada Ltd. and its subsidiaries. *Ord., $2 par, based on No. of shs. o/s at Dec. 31/56. ‡Millions of board feet.	1956 ♣1955	$8,000	184,000	12,707,500 14,014,000	19,797,914 21,756,000	3,852,062 ♦4,337,000	24.61 25.58	5,137,034 6,852,000	9,440,660 9,886,000	472.29	*1.25 1.41	6.00	0.50	5,620,410	28,008,695 38,759,000	F. N. Youngman, chm.; P. T. Sinclair, pres.; R. H. R. Young exec. vice-pres.; O. D. Hallin, vice-pres.; R. D. Baker, P. E. Cooper, R. J. Filberg, R. T. Hager, Hon. E. W. Hamber, M. D. Hamilton, O. F. Lundell, W. E. Wintemute, J. A. Young, Vancouver. Vice-pres.'s—E. W. Campbell, R. J. Schadt, F. A. Scott. Treas. & compt.—G. J. C. Hodson. Sec.—T. A. A. Fraser. Canadian Western Lumber Co. Ltd. and its subsidiaries and Elk Falls Co. Ltd. and its subsidiaries.
DONNACONA PAPER• ..... Note—97% of outstanding shares owned by Howard Smith Paper Mills Ltd.	1956 1955	1,721 sq. mi.	105,000	4,550,000 4,745,000	5,097,252 4,581,030	♦937,724 ♦963,441	24.54 20.52	1,881,386 1,615,951	2,105,988 1,822,659	....	5.55 4.80	....	1.00+0.50 1.00	1,536,690 1,443,127	7,796,827 7,144,819	L. W. Michael, pres. & treas.; L. A. Palmer, vice-pres. & gen. mgr.; Donnacona, P.Q.; E. Howard Smith, vice-pres.; Hon. G. B. Foster, H. R. Crabtree, E. K. Robinson; Montreal; J. Edouard Simard, Sorel, P.Q.; Aubrey Crabtree, Edmundston, N.B.; A. J. Philip, Windsor Mills, P.Q. Sec.—P. L. Fitzgerald.
DONOHUE BROS.▲	1956 1955	957 sq. mi.	70,000	3,450,000 3,523,300	2,266,535 2,126,083	♦288,954 ♦312,177	10.01 11.27	839,260 780,624	940,715 872,373	....	3.14 2.91	....	1.20+0.30 1.20+0.25	490,715 437,373	4,997,796 4,412,515	Chas. Donohue, chm.; G. T. Donohue, pres.; Mark Donohue, exec. vice-pres. & gen. mgr.; P. M. A. Simard, vice-pres. & treas.; A. E. Beauvais, vice-pres. & sec.; L. J. A. Amyot, Quebec, P.Q.; J. D. Coffin, New York.
GREAT LAKES PAPER• ..... ‡Consolidated. *Does not include profit on disposal of fixed assets amounting to $60,368 in 1956.	‡1956 ‡1955	6,650 sq. mi.	245,000	22,250,000 9,316,000	8,573,895 7,850,538	♦2,065,811 ♦1,059,257	8.54 65.54	2,760,000 3,200,000	*2,986,129 *3,450,118	†29.86 †34.50	2.39 2.78	†1.20 †1.20	1.60 1.60	946,129 1,410,118	♦1,044,393 16,158,748	P. M. Fox, chm., Montreal; C. J. Warwick Fox, pres. & gen. mgr., Fort William, Ont.; Ross Clarkson, J. R. Timmins, Montreal; W. C. Cochrane, R. G. Meech, Col. M. C. G. Meighen, Toronto; Hon. Ray Lawson, Oakville, Ont.; C. B. McDowell, Akron, Ohio; C. P. Slane, Peoria, Ill.; L. S. Mackersy, B. H. Ridder, Jr., Russ Stewart. Vice-pres. & sec.-treas.—K. A. Miners. Vice-pres.—J. H. Merrill. $43,067 in 1955. †Cl. B only.
JAMES MACLAREN CO.▲ ..... Wholly owned by Maclaren Power & Paper Co.	1956 1955	2,600 sq. mi.	105,000	....	5,818,487 5,719,621	423,875 369,688	....	2,356,000 2,315,400	3,038,612 3,034,533	....	....	....	....	....	....	A. Barnet Maclaren, pres., Ottawa; A. Roy MacLaren, vice-pres.; J. W. Thomson, sec.; Buckingham, P.Q.; C. H. MacLaren, Ottawa.
MERSEY PAPER ..... *Consolidated. ♦After depletion. ‡Pref. redeemed Apr. 1, 1955. •Wholly owned subsidiary of Bowater Corp. of N.A.; accts. cover 8 mos., from May 1 to Dec. 31/56. †In addition, stock divd. of one 5% pref. sh. for each 11 1/9 com. shs. pd. Feb. 1, 1956. ▪5½% pref. stk.	♦1956 *1955	1,030 sq. mi.	138,000	24,951,875	5,019,115 ▪6,743,238	1,779,513 570,215	3.99 75.53	447,000 2,828,274	1,885,635 3,263,024	▪9.43 ‡	0.58 16.07	▪0.7876	0.17 †3.00	1,228,915 2,590,791	5,119,560 2,761,622	Sir Eric Bowater, chm., London, Eng.; B. J. Waters, pres. & gen. mgr.; J. H. M. Jones and R. L. Seaborne, vice-pres.'s; J. A. Parker, sec.-treas., Liverpool, N.S.; G. S. Currie, Montreal, P.Q.; H. M. S. Lewin, Corner Brook, Nfld.; K. N. Linforth, London, Eng.
MINNESOTA & ONTARIO PAPER§ ..... †Consolidated. ‡New common, after 2-for-1 stock split. ♦On new common; 70c paid on old common.	†1956 †1955	10,000 sq. mi.	216,000	14,000,000 14,000,000	18,996,158 17,543,098	♦3,288,241 ♦3,062,555	31.93 31.56	7,671,000 6,945,000	7,544,917 7,076,693	....	‡2.93 5.50	....	♦1.10 2.40	3,813,417 3,859,883	14,818,891 24,978,466	J. B. Faegre, chm.; Robert Faegre, pres.; Minneapolis; T. L. Daniels; St. Paul; B. B. Dayton, H. W. Sweatt, D. F. Bull, T. M. Crosby, Minneapolis; Serge Semenenko, Boston; C. S. Garland, Baltimore, Md.; C. G. Cockshutt, Brantford, Ont.; R. S. Waldie, Toronto. Vice-pres.'s—C. Larsen, P. A. Mahony, E. L. Lamb. Treas.—E. A. Johnston. Sec.—A. T. Morrison. Compt.—D. K. Kaslow.
POWELL RIVER§ ..... ‡Consolidated. †Including profit on sale of fixed assets and securities amounting to $5,385 in 1956 and $105,467 in 1955.	‡1956 ‡1955	740 sq. mi.	495,000	5,000,000	26,552,337 28,593,942	♦5,856,814 ♦4,946,591	....	9,795,000 11,555,800	10,906,108 †12,197,018	....	2.60 2.90	....	1.20+0.60 1.15+0.65	3,346,108 4,637,018	13,372,870 17,161,328	H. S. Foley, chm.; M. J. Foley, pres.; G. W. O'Brien, vice-pres.; A. H. Williamson, W. S. Brooks, Col. Hon. C. Wallace, Maj.-Gen. H. F. G. Letson; Vancouver; Conley Brooks, Anson Brooks, Minneapolis, Minn.; R. H. Scanlon, San Francisco; J. S. Sample, Chicago. Vice-pres.'s—I. H. Andrews, J. E. Leirsch, J. A. Kyles, R. M. Cooper, W. C. R. Jones. Compt.—K. B. Finn.
PRICE BROS. & CO.§ ..... ‡Consolidated.	‡1956 ‡1955	7,696 sq. mi.	480,000	5,935,000 6,164,000	20,335,130 19,931,463	♦3,105,000 ♦2,915,000	99.69 90.05	8,050,000 7,650,000	9,006,939 9,172,873	180.14 183.46	4.02 4.09	4.00 4.00	3.00 2.00	2,232,655 4,590,017	43,270,586 44,072,702	H. J. Symington, chm., Montreal; A. C. Price, pres., Quebec, P.Q.; A. A. Aitken, vice-pres.; J. D. Johnson, W. A. Arbuckle, A. S. Gordon; Montreal; M. R. Kane, A. C. Picard, A. C. M. Thomson, Guy Hudon, Quebec, P.Q. Exec. vice-pres.—Hector Cimon. Vice-pres. i/c woodlands—M. V. Cain. Vice-pres. & treas.—P. W. Sims. Sec.—Fabre Surveyer.
ST. LAWRENCE CORP.§ ..... †Consolidated statement. ‡New common stk., after 4-for-1 split. *On new common stk.; $1.50 pd. on old stk.	†1956 †1955	9,091 sq. mi.	380,700	26,386,699 27,813,476	23,353,125 19,457,228	♦4,424,261 ♦4,113,146	12.57 9.32	8,129,660 6,569,625	9,293,230 7,062,842	66.95	‡1.99 6.40	2.97	*0.25 2.00	6,079,980 4,857,412	38,326,061 21,433,997	M. W. McCutcheon, chm., Toronto; P. M. Fox, pres.; N. A. Timmins, Jr., vice-pres.; Hon. Edouard Asselin, A. K. Cameron, A. H. Campbell, J. E. L. Duquet, H. C. Flood, Hon. G. B. Foster, J. L. Rankin; Montreal; J. A. McDougald, E. P. Taylor, Col. W. E. Phillips, Toronto; Hugh Mackay, Rothesay, N.B.; D. J. Salls, Sherbrooke, P.Q.; Nathan Pitcairn, Philadelphia, Pa.; Arthur Ross, New York. Vice-pres. & gen. mgr.—S. E. Williams. Vice-pres.—J. W. Fries. Compt. & treas.—L. A. Tucker. Sec.—J. E. Martin.

‡Including depletion. †Deficit. •Also produces sulphite pulp. §Also produces pulp, kraft or other wood products. ▲Also produces groundwood pulp. *Also produces paper & misc. products.

Fine and Specialty Paper Group

Company	Year	Wood Resources Cords or Sq. Miles	Mill Capacity Annual Tons	Funded Debt $	Net Earn. $	Degree. $	Times Int. Earned After Degree. No.	Income Taxes $	Net Profit $	Earnings per Share Pref. $	Earnings per Share Com. $	Dividends Paid or Pay. Pref. $	Dividends Paid or Pay. Com. $	Surplus for Year $	Working Capital $	DIRECTORS
EDDY PAPER CO.§ ..... †Consolidated. ‡Funded debt of subsidiaries.	†1956 †1955	5,800 sq. mi.	155,000	‡21,000,000 ‡19,375,000	7,085,675 6,205,525	♦2,585,167 ♦2,424,083	5.44 6.16	1,749,200 1,519,090	1,817,062 1,538,917	9.09 7.69	8.09 6.69	1.00 1.00	nil nil	1,617,062 1,338,917	13,039,754 13,551,918	W. Garfield Weston, chm.; R. F. Caldwell, pres. & man. dir., Ottawa; W. D. Moffatt, J. A. Craig, D. G. Currie, vice-pres.'s; B. W. Power, vice-pres. & treas.; C. L. Gundy, J. F. Taylor, Toronto. Sec.—C. G. Banghart.
ROLLAND PAPER ..... *In Jan., 1956, issue made of $5,500,000 new 1st mtge. bonds and previous issue retired. ‡Class A only after participation, ($8.44 before part.), class B $2.36 after part. and paid 80c.	1956 1955	....	33,000	5,350,000 *1,150,000	1,951,870 1,454,639	412,707 314,622	7.50 23.79	608,700 512,000	725,271 580,095	42.66 34.12	‡3.76 ♦8.46	4.25 4.25	10.40 ♦1.00+0.40	533,019 423,844	2,071,943 2,501,652	L. G. Rolland, pres. & gen. mgr., St. Jerome, P.Q.; J. A. Weldon, vice-pres. (finance); R. H. Ecclestone, vice-pres. & sales dir.; Montreal; Marc Rolland, vice-pres. & mills mgr.; St. Jerome, P.Q.; Olivier Rolland, Albert Rolland, Alderic Laurendeau, Montreal; Hugh Mackay, Rothesay, N.B.; J. Y. Murdoch, K. S. Maclachlan; Toronto. Treas.—H. A. Leblanc. Sec.—J. P. Lefebvre. ▲Old com mon; following stock split approved Dec. 19, 1955, earnings after partic. equal to $2.95 per cl. A share and $2.55 per cl. B share.
HOWARD SMITH PAPER§ ..... †Consolidated. ‡Including Donnacona Paper Co. Ltd. *Including 20c paid out of 1954 earnings.	‡1956 †1955	5,000 sq. mi.	‡310,000	15,897,500 17,495,000	20,395,362 18,101,426	♦5,220,285 ♦5,349,774	24.28 18.69	6,850,000 5,850,000	7,089,130 6,146,659	44.31 38.42	3.88 3.34	2.00 2.00	1.00+0.50 1.00+*0.45	4,155,005 3,299,672	23,826,400 22,335,271	E. Howard Smith, chm. & pres.; E. K. Robinson, exec. vice-pres., Montreal; A. J. Philip, vice-pres. & gen. mgr., Windsor Mills, P.Q.; G. H. Tomlinson vice-pres.; G. W. Bourke, deGaspé Beaubien, W. A. Arbuckle, Howard Murray, J. D. Johnson, Col. R. D. Harkness, W. H. Howard, R. Roy Crabtree, D. S. Abbott, C. W. Webster, Montreal; W. E. Phillips, M. W. McCutcheon, J. A. McDougald, E. P. Taylor, Toronto. Vice-pres.—W. H. Aird. Sec. & treas.—K. G. Pendock. Controller—R. J. Leslie.
WESTMINSTER PAPER▲ ..... *11 mos. ended Dec. 31.	1956 *1955	....	30,000	....	2,075,442 1,650,435	384,266 314,445	....	755,000 565,000	936,176 781,759	A 47.06 33.37	B 1.93 1.57	A 0.50 0.50	B 0.70+0.10 0.70+0.10	542,388 370,140	2,641,777 2,384,199	J. J. Herb, chm., Bellingham, Wash.; E. M. Herb, pres. & man. dir.; J. Ashby, vice-pres.; Vancouver, B.C.; F. F. Foote, treas.; J. G. Robson; New Westminster; A. D. Lauder, C. Bentall, Vancouver; A. F. Armstrong, N. W. Markus, Jr

§Also mfrs. pulp products and by-products. ‡Including depletion. ▲Also produces groundwood and sulphite pulp. dDeficit.

Pulp Group

Company	Year	Wood Resources Cords or Sq. Miles	Mill Capacity Annual Tons	Funded Debt $	Net Earn. $	Degree. $	Times Int. Earned After Degree. No.	Income Taxes $	Net Profit $	Earnings per Share Pref. $	Earnings per Share Com. $	Dividends Paid or Pay. Pref. $	Dividends Paid or Pay. Com. $	Surplus for Year $	Working Capital $	DIRECTORS
BATHURST POWER & PAPER ..... ▲Consolidated. *All products. ‡Before (after) participation; after partic. cl. A earned $4.00 (max.) both years.	▲1956 ▲1955	2,700 sq. mi.	*182,000	8,264,500 8,818,500	7,830,438 7,774,507	♦1,627,099 ♦1,423,077	14.93 14.68	2,724,000 2,744,000	3,043,752 3,154,819	A ‡7.61 ‡7.89	B †4.44 †4.78	A 2.00+1.50 2.00+1.50	B 1.50 1.50	1,156,252 1,267,319	11,668,721 12,137,326	R. L. Weldon, pres.; R. H. Christian, exec. vice-pres.; Montreal; J. G. Chalmers, Bathurst, N.B.; Joseph A. Simard, P. N. Thomson, J. B. Woodyatt; Montreal; Hon. G. P. Burchill, Nelson, N.B.; E. M. Little, Quebec, P.Q.; Gordon McMillan, Toronto, Ont. Sec.—E. S. Kirkland. Treas.—S. C. Hollingshead.
DRYDEN PAPER CO.•• ..... ▲Consolidated. *All products. ‡Before (after) participation; after partic. cl. A earned $4.00	1956 ♦1955	24,000,000 cords	142,000	14,000,000 14,000,000	3,627,953 3,473,708	♦2,355,354 ♦1,336,175	1.91 4.66	421,000 828,225	186,599 850,926	....	0.87 3.96	....	1.20 1.60+0.40	14,599 418,832	4,330,855 5,437,567	J. R. S. McLernon, chm.; E. L. Goodall, pres. & gen. mgr.; W. H. Howard, C. H. King, E. M. Little, R. R. McLernon, H. D. Ruthman, W. E. Soles, P. G. Walker. Sec.-treas.—David Young.
FRASER COS.▲ ..... †Consolidated.	†1956 †1955	5,519 sq. mi.	244,500	3,500,000 3,850,000	16,778,926 14,481,940	♦3,621,534 ♦3,418,655	115.67 90.31	6,338,000 5,230,000	6,705,642 5,710,785	....	3.01 2.57	....	1.15+0.50 1.00+0.50	3,032,574 2,371,632	16,201,772 15,036,348	Aubrey Crabtree, chm., pres. & gen. mgr.; L. M. Sherwood, vice-pres. & controller; Edmundston, N.B.; A. H. Campbell, Hon. F. P. Brais, C. M. Matheson, H. Roy Crabtree, H. P. Thornhill, Montreal; Hon. D. L. MacLaren, Ralph B. Brenan, Saint John, N.B.; R. A. Jodrey, Hantsport, N.S. Sec.—G. G. Gillies. Treas.—E. S. McLean.

‡Including depletion. ••Also produces kraft and other papers. ▲Also produces board and specialty papers.

Miscellaneous Group

Company	Year	Wood Resources Cords or Sq. Miles	Mill Capacity Annual Tons	Funded Debt $	Net Earn. $	Degree. $	Times Int. Earned After Degree. No.	Income Taxes $	Net Profit $	Earnings per Share Pref. $	Earnings per Share Com. $	Dividends Paid or Pay. Pref. $	Dividends Paid or Pay. Com. $	Surplus for Year $	Working Capital $	DIRECTORS
BARBER-ELLIS OF CANADA	1956 1955	....	....	....	806,910 652,082	111,973 114,594	....	299,962 216,323	391,975 316,165	328.65 263.47	8.81 7.09	3.50 3.50	3.20+1.60 3.20+0.80	176,575 135,965	1,610,612 1,452,349	E. H. Ellis, pres., Toronto; C. G. Ellis, chm. & vice-pres., Brantford, Ont.; K. W. Murphy, gen. mgr., Toronto; J. S. Ellis, treas., Montreal; J. W. Westaway, T. A. Thornton, Toronto; A. E. Nelson, Winnipeg; Lt.-Col. Vernon Stott, Vancouver; E. W. Thompson, Brantford. Sec.—C. F. Tress.
BUILDING PRODUCTS ..... †Including prof. on sale of fixed assets and investments of $4,577 in 1956 and loss of $4,169 in 1956.	1956 1955	....	....	....	4,390,882 3,143,274	571,298 508,991	....	1,760,441 1,035,361	2,054,974 †1,602,066	....	4.25 3.31	....	1.80 1.80	1,184,883 731,975	6,687,397 6,740,780	W. R. McNeil, chm.; L. S. Odell, vice-chm.; L. F. Long, pres. & man. dir.; J. D. Johnson, G. W. Huggett, J. A. Eccles, Montreal; H. R. Tachbope, Toronto; Joseph Harris, Winnipeg; P. R. Allen, East Walpole, Mass. Vice-pres.—C. E. Turner. Sec.-treas.—J. E. Mitcham.
CANADIAN WALLPAPER ..... *Year ended April 30.	*1957 *1956	....	....	600,000 140,000	247,300 465,979	157,413 143,085	....	4,400 90,000	60,737 225,294	....	A & B 0.47 1.74	....	A & B 0.20 0.40	34,888 173,596	2,824,348 2,329,456	Arnold Ashton, pres., Toronto; L. K. Redman, vice-pres., Manchester, Eng.; R. J. Boxer, T. A. G. Staunton, R. R. Sperling, D. A. Mackenzie; Toronto; A. Jackson, Alfred Whittle, Manchester, Eng.; G. H. Walmsley, Rochdale, Lancs., Eng.; J. Watson, Darwen, Lancs. Eng.; I. C. Sanderson. Sec.-treas.—John Prescott.
HENDERSHOT PAPER PROD. ..... ‡Redesignated to 6% shs. †New com. shs. ♦Initial divd. *On new com. shs.; old com pd. 50c.	1956 1955	....	....	....	362,350 345,844	54,292 35,370	....	132,196 141,174	175,862 169,300	‡23.48 ‡7.72	†0.96 5.23	♦2.20 5.00	*0.22½ 1.00+0.25	100,697 119,300	748,249 248,221	J. C. Colclough, pres. & gen. mgr., Hamilton, Ont.; T. R. Harrison, G. K. Masters, vice-pres., Toronto; Argue Martin, D. Robertson, Hamilton, Ont. Sec.-treas.—E. M. McArdle.
HINDE & DAUCH PAPER ..... ‡Consolidated. *Year ended Oct. 31. ♦Ten months ended Oct. 31. †Based on No. of shs. o/s as calculated from dividends paid. ▪Represents three quarterly payts. fourth quart. payt. declared Nov. 20/56, not included in accts.	‡*1956 ‡*1955	....	....	3,200,000 3,500,000	4,906,258 4,954,605	1,254,652 1,131,816	29.89 30.43	1,670,000 1,740,471	1,859,450 1,956,704	....	5.17 5.44	....	▪1.35 1.80	1,373,450 1,308,704	6,934,406 6,899,352	Sidney Frohman, chm.; C. E. Frohman, vice-chm.; Sandusky, Ohio; W. H. Palm, pres. & gen. mgr.; T. E. Lloyd, vice-pres. & sec.; M. H. McArthur, vice-pres. sales; R. L. Warren; Toronto; D. L. Luke, Jr., J. D. Cowan, D. L. Luke, III, New York. Treas.—R. S. Kellow.
SIDNEY ROOFING & PAPER	1956 1955	....	....	7,000,000 5,000,000	2,100,943 1,771,552	588,885 561,747	5.64 9.80	596,900 561,090	647,145 519,683	12.94 10.39	6.02 4.75	0.90 0.90	nil nil	602,145 474,683	4,376,369 4,381,937	W. Garfield Weston, chm.; R. W. Mayhew, vice-chm.; J. A. Craig, pres. & gen. mgr.; H. E. Brown, sec. & treas.; R. F. Caldwell, R. A. Irwin, A. H. Williamson.
SOMERVILLE ..... *Special. ‡After giving effect to change of 5,000, $100 par shs. into 500,000 n.p.v. shs. in Aug., 1956.	1956 1955	....	....	2,617,802 2,720,806	1,823,718 1,771,463	449,618 420,509	9.35 8.90	543,200 580,600	683,971 618,491	17.54 15.46	‡1.61 142.15	2.80 2.80	nil *60.325	572,671 291,551	1,450,532 2,096,015	W. Garfield Weston, chm.; F. C. Lennox, pres. & gen. mgr.; A. G. Shillington, vice-pres., prod.; F. B. Campbell, sec.-treas. & controller; J. A. Chambers, D. J. Snell, G. C. Snell.
J. C. WILSON ..... ▪Loss or deficit.	1956 1955	....	....	....	337,813 75,068	138,909 134,152	....	42,515 15,767	150,912 ▪61,041	....	0.91 d0.49	....	0.50 0.12	68,037 ▪100,931	1,199,273 1,218,618	F. Howard Wilson, pres.; H. G. Lafleur, vice-pres.; J. B. Morgan, Dudley Dawson, J. Pembroke, G. M. Strong; Montreal. Sec.-treas.—R. D. Linton.

Only Few Dark Shadows in Industry's Peaceful Labor-Management Relations

By CLIVE BAXTER

The pulp and paper industry can point with pride to its labor-management relations.

There have been a few dark spots. But, on an industry-wide basis, things have been fairly peaceful in the past year or two.

Behind this was the main-spring of prosperity. Things were going so well that companies were prepared to pay good-sized increases and everyone was kept busy. There were few rashes that threatened to become infectious.

Next year, however, promises to be different.

Some of the reason for this can be found within the industry itself. Top management warns that more competitive times lie ahead.

Big Labor Gains

				(June)
Pulp and paper mills	1946	1951	1954	1957
Av. weekly wage....	$38.98	$66.32	$73.62	$85.67.
Hourly earnings	$ .79	$ 1.37	$ 1.71	$ 2.03
Hours worked per week	49.4	48.3	43.0	42.2

As with so many things, of course, this is largely relative. One observer of the pulp and paper scene explained to FP:

"When you have been operating at 110% of capacity for a while and then drop to 95%, things look pretty grim. Most industries would give their eye teeth to reach 90% of rated capacity.

"But," he added, "company negotiators will meet the unions next year with a real feeling that the honeymoon is over, and that wage rates must be limited a bit."

How about the union men who will sit across the bargaining tables?

Their's is a different outlook. Labor is flying at full throttle right now. Troubled by rising costs, the unions present a united front in demanding hefty rises across the whole national industrial scene. In pulp and paper it's the same.

One union leader told FP that the pulp and paper industry could expect some stiff demands. "Our purpose will be to call for at least holding the line," he said. "That means wages must compensate, or more than compensate, for rising living costs."

Now, in offices from the Maritimes to British Columbia the unions are holding policy meetings.

A trend is already showing. The contracts companies will be asked to sign next year may be light on straight wage demands—some union executives expect to settle for a straight cost-of-living clause over present rates—out will be sprinkled liberally with hefty fringe benefits.

One certain demand will be for a much greater company participation in hospitalization plans. At present most Quebec and Maritimes firms contribute between $2.15 to $2.25 per worker each month. In Ontario and B. C. it is a little more.

Probable union demand will be for a flat $6 a month contribution, coast-to-coast.

This is the contract position right now:

On the West Coast the companies that deal with International Woodworkers of America are already in trouble. The dispute has gone to conciliation.

IWA is asking for a 20% hike and the companies are warning that means a dangerous increase in costs at a time of falling world markets.

In the rest of Canada the newsprint and pulp companies are in the final stretch of two-year contracts that expire in May and June next year.

Year Contract

The fine paper industry is tied to a one-year contract which runs out in April.

By tradition, workers in B. C. fare better than their eastern brothers. But the recent wage boost in the east that came with the two-year contract—12c in the newsprint and pulp industry in 1956 plus a 5% rise in 1957—meant a comparative gain for the eastern average.

That basically is the root of the present western dispute. B. C. workers want to restore the differential.

Of course the union leaders will not find workers in the pulp and paper industry too easy to manage. They do well now, and realize it.

For instance, across Canada, pulp and paper average hourly wage is well above the industrial average.

Dominion Bureau of Statistics figures for April showed this province by province breakdown:

Newfoundland: Newsprint and pulp, $2.16. Industrial average, $1.56.

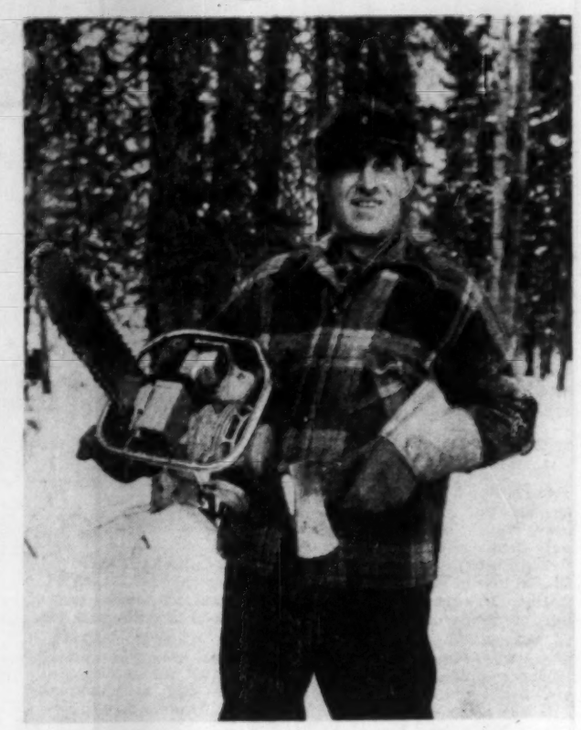
New Brunswick: Pulp and paper, $1.98. Industrial average, $1.40.

Quebec: Pulp and paper, $1.90. Industrial average, $1.41.

Ontario: Pulp and paper, $2.00. Industrial average, $1.68.

British Columbia: Pulp and paper, $2.20. Industrial average, $1.89.

Only two major groups of workers in the country do better. These are the 8,400 petroleum and oil workers with an average of $2.15 an hour and 32,500 iron and steel workers pulling in an hourly average of $2.09.



THE MODERN pulpwood cutter uses mechanical equipment to speed his output. He owns his own saw. He is housed in comfortable camps and eats food of high quality on a basis prescribed by dietetic scientists.

Labor observers are now taking uncomfortable note of the annual wage pace-setters. The United Auto Workers plays an important part in setting the trend, and UAW's president Walter Reuther has already given some hint that 1958 will be a tough year on the labor front.

In the atmosphere of union-management friction that could well be in store for 1958 a mood could be created that could make pulp and paper workers more militant in support of a big increase—even though they are so well paid.

Canada's woodlands labor structure is divided.

It includes Brotherhood of Pulp, Sulphite and Paper Mill Workers (35,000 members in Canada) and the closely allied Brotherhood of Paper Makers.

Both these unions are members of Canadian Labor Congress. In action, they complement each other and often both represent workers in one mill.

On the west coast the International Woodworkers of America are all-powerful. That union acts independently of the others and tends to treat the Pacific Northwest — both British Columbia and the U. S. —as its domain.

Affects West

In Ontario there is also the small CLC-affiliated Lumber and Sawmill Workers Division of the large Carpenters Union.

This set-up works fairly smoothly, for the time being anyway. The three predominantly eastern unions don't get in each other's way, and Woodworkers is left to rule its own roost.

The fly in the ointment—which appears regularly these days—is the floundering Canadian and Catholic Confederation of Labor which is fighting a back-to-the-wall war to survive in Quebec.

Once the major force in pulp and paper labor affairs in the province, CCCL has slipped, stumbled—and been pushed—down the path to near-oblivion.

This summer, while its top brass earnestly discussed the advantages of calling it a day and joining CLC, CCCL could only count 25% of Quebec's pulp and paper workers in its ranks.

Pulp and Paper Workers—one of CCCL's syndicates—is its outlet for the industry. And that syndicate has run up an impressive list of defeats in skirmishes with CLC's Brotherhood of Pulp, Sulphite and Paper Mill Workers.

This summer CCCL said a reluctant "good-bye" to the LaTuque Mill of **International Paper.** It was the third mill to fall in 13 months—the others being in Shawinigan and Grand'Mere.

The recent CLC union raids against CCCL followed a clearly defined pattern. First the Brotherhood of Papermakers gets in, representing its own small section of the workers.

Then comes the raid, as big-brother Pulp and Sulphite organizers arrive. So far the CCCL officials have been powerless to halt the invasion. At each turn they have fought back with enormous energy, making free use of the courts. But the power of the CLC's international unions has been too much.

This fall CCCL planners are watching and waiting to see where the next thrust will be.

CCCL may be threatened in the mills of **Price Bros.** at Kenogami and River Bend with 800 and 600 employees respectively.

There are really no signs of any end to this invasion. In these days of big unionism new members mean new money and power—and so the remaining CCCL members in pulp and paper are much in demand.

With open inter-union war in Quebec, and the promise of tough wage demands, 1958 could well see the relative labor peace in pulp and paper interrupted.

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Hunting World Markets

CONTINUED FROM P. 57

area are Argentina and Brazil which together account for over 55% of the newsprint consumed in Latin America. Their demand, plus that of other Latin American countries, is expected to rise by about 30,000 to 40,000 tons annually between now and 1959 and should reach 717,000 tons by then.

Asia: By 1959, demand for newsprint by free Asian countries is expected to rise to 1,060,000 tons from the 1955 apparent consumption level of 791,000 tons, an increase of nearly one third or 260,000 tons.

The demand for newsprint in Japan accounts for 173,000 tons of this increase, while newsprint requirements are expected to rise 33,000 tons and South Korea's additional 11,000 tons in the same period. The remainder of the increase is spread throughout Asia.

Many intangibles, political, financial, and cultural, affect the ability of Asian countries to consume newsprint and could alter these estimates. However, these figures seem reasonable, assuming that there will be no large scale conflicts and that in general economic conditions will improve, the U. S. report indicates.

There have been a number of announcements of proposed newsprint mills for Asia. However, realistically, the expansion of newsprint production there probably will be confined to countries which are now producing such as India, Israel, Japan, South Korea, Taiwan and Turkey.

Pacific: The annual demand for newsprint in Australia, New Zealand and Hawaii is expected to increase gradually to nearly 425,000 tons in 1959, a 10% rise over 1955.

The new newsprint mill in New Zealand is estimated to have turned out 50,000 tons in 1956 and will gradually approach 100,000 tons by 1959, making New Zealand self-sufficient.

In fact, it will have available for export from 28,000 tons in 1957 to 56,000 tons by 1959. It is expected that most of this tonnage will be shipped to Australia. New Zealand consumers are expected to continue to import 20,000 tons to protect themselves against possible shutdown of their mill.

Australian production will rise slightly by 6,000 tons to 90,000 tons in the next three years.

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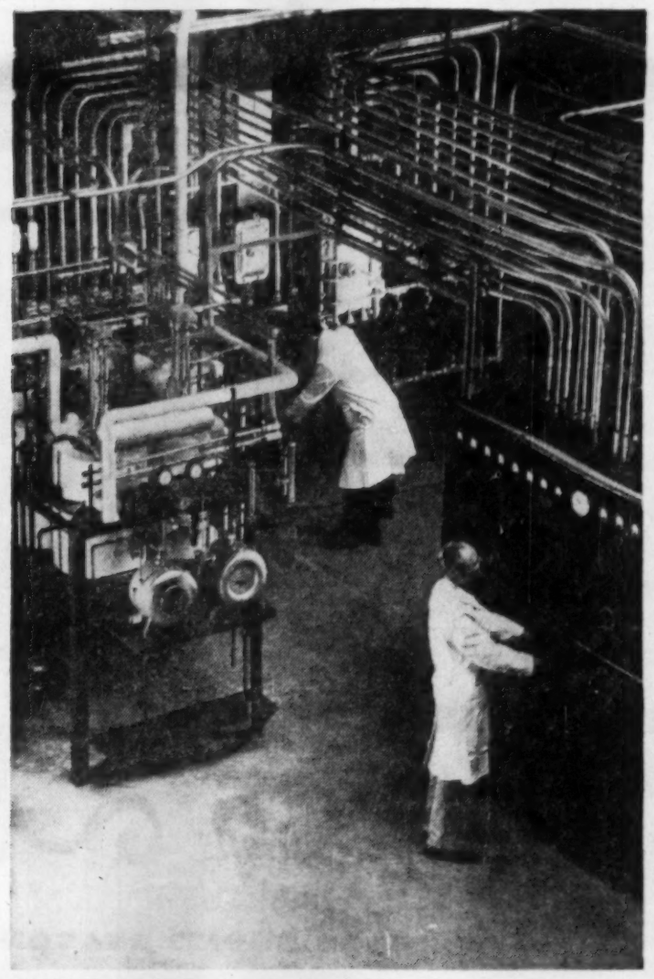
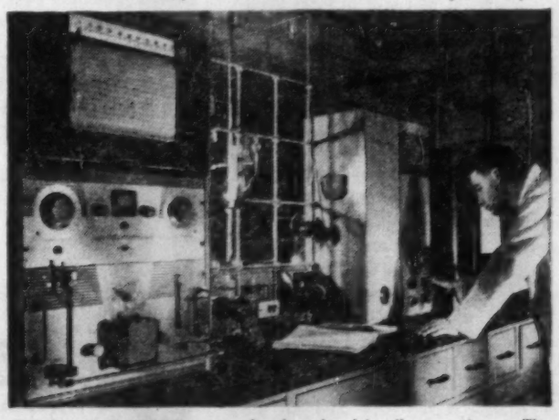


MOST PILOT UNITS at The Center are put together from standard "building blocks." Skid-mounted charging units such as the one at left hold tanks, heaters and pumps for transfer and metering. Process equipment, here shown in background center, can be widely varied. At right is electrical control cabinet. All switches, relays and controls not housed in explosion-proof boxes are enclosed in cabinets like this one, pressurized with outside air to exclude process vapors.



ANALYSIS OF MATERIALS processed and produced in pilot operations at The Center is an important part of the work carried out by Lummus engineers. Here a laboratory technician determines the composition of a multiple-component gas, using a gas chromatography technique.

Newsprint

Abitibi

Abitibi Pulp & Paper Co. directly and through subsidiaries manufactures newsprint, papers of all descriptions, sulphite and groundwood pulp and associated products. Company also has extensive timber limits and water power rights.

One of the world's largest makers of pulp and paper, company's total 1956 production reached a record 1,046,430 tons (1,001,715 tons in 1955). Of this amount, newsprint accounted for 815,830 tons (793,560 tons).

Company's properties include six newsprint mills at Iroquois Falls, Fort William, Sault Ste. Marie, Port Arthur in Ontario; Beaupré, Qué.; Pine Falls, Man. At Sturgeon Falls, Ont., company operates a corrugating board and hardboard mill.

Mills for fine paper production are maintained by a subsidiary, **Provincial Paper Ltd.**, at Port Arthur, Georgetown and Thoroid, Ont.

A wholly owned U.S. subsidiary, **Abitibi Corp.**, was formed in 1955 to manufacture hardboard and insulating board at Alpena, Mich. Costing some $16.5 million, it is now expected to come into operation during the last quarter of 1957. Preproduction expenses are being charged against consolidated earnings.

In January this year, **Rayonier Inc., New York,** exercised its option to acquire on share exchange basis Abitibi's 10% interest in **Alaska Pine Cellulose.** Abitibi received 125,000 common shares of Rayonier Inc.

Company also holds a substantial interest in **Okanagan Helicopters Ltd.**, which operates a fleet of helicopters throughout Canada.

During 1956 company's capital expenditures amounted to a record $19.6 million ($9.6 million in 1955). Included were outlays on: new newsprint machine now being installed at Fort William; spending on the Alpena hardboard plant; new particle board plant (Platewood) at Sturgeon Falls. Company also acquired additional timber limits to supply its Beaupré, Qué., mill.

Earlier this year speed up of two paper machines at Pine Falls was continuing on schedule and it is expected output will be increased by more than 20% at these machines. Third and final addition to Sault St. Marie steam plant was completed. Currently, work continues on installation of the new Fort William newsprint machine.

Abitibi's working capital at June 30 amounted to $41.1 million ($37.3 million mid-1956).

Consolidated net profit for 1956 was $15.4 million ($13.9 million). Earnings per share were $29.42 on the preferred ($25.34) and $3.56 on the common ($3.20). Dividends amounted to $1.12½ on the preferred, unchanged from year before while company paid $1.60 on the common vs. $1.35 in 1955.

Net earnings in 1956 include almost $1.2 million consisting mainly of interest earned on temporary surplus funds invested in short-term securities and profits resulting from advisory services to **Tasman Pulp & Paper Co.**, New Zealand.

Consolidated net profit for six months ending June 30, 1957, was $6,583,235 (7,990,684) equal to $1.51 per common share ($1.85). Decline was due to a great extent to the unfavorable exchange rate on U.S. funds and increased costs of production, states President D. W. Ambridge.

Company notes that while marketing very large tonnages of all products, its capacity to produce newsprint has not been fully utilized during the first six months of the year and it does not seem likely that the full capacity of all its newsprint mills will be required for some months to come.

There is now an abundant supply of newsprint for publishers everywhere who are in a position to pay in dollars, say company officials.

Net sales in 1956 amounted to $132.5 million ($123.2 million). Increase reflects higher production of all products, although return on sales in the U.S. adversely affected by higher rate of exchange.

Net sales for first six months of this year reached $66.5 million, an increase of close to $1 million over sales in the same period last year. On March 1, 1957, company raised price of newsprint by 3%, an increase "overdue and inadequate to compensate producers for increased costs of production and delivery," say company officials.

During 1956, company sold $15 million 4½% convertible debentures series A due Sept. 15, 1966.

Capitalization outstanding at Aug. 31, 1957, included: $14.8 million 3½% first mortgage 20-year sinking fund bonds series A, due April 1967; $9.8 million 4% first mortgage sinking fund bonds series B, due July 15, 1974; $15 million 4½% convertible debentures series A, due Sept. 15, 1966; 518,160 4½% cumulative redeemable preferred shares $25 par value (543,850 in 1956); 4,163,218 common shares npv.

Anglo-Canadian

Anglo-Canadian Pulp & Paper Mills Ltd. produces newsprint, paperboard and unbleached sulphite pulp.

Rated capacity of the mills is some 275,000 tons of newsprint, 23,000 tons of paperboard and 60,000 tons of unbleached sulphite pulp (in excess of needs for newsprint) per annum.

Products are marketed largely in the U.S. where about 80% of newsprint production is sold. The same market takes about 60% of the pulp which the company sells. Balance sold includes Canadian and U.K. markets.

Sales last year were at a record. Output of all products was 411,434 tons (388,067 in 1955). The Quebec mill produced 255,696 (237,187) tons of newsprint, 22,434 (20,566) tons of paperboard and 51,140 (62,289) tons of unbleached sulphite pulp. More unbleached sulphite was produced but an increasing proportion was needed for additional newsprint and paperboard output.

Capital expenditures amounted to $13,459,232 ($5,522,550) including $9,340,229 spent by **Dryden Paper** on its new development program. The Quebec mill's major expenditures were $1,004,299 for modernizing and improving the electrical system, $645,691 for completion of a refuse burning plant, while $987,940 was spent for paper machine improvements and additions at Dryden in Quebec.

Company's mill is located in Quebec City on tidewater at the juncture of the St. Lawrence and St. Charles River. Equipment includes four newsprint machines, one paperboard machine, two sulphite pulp machines. Adjoining the plant is a company owned private wharf capable of docking ships of 5,000 to 6,000 tons. This gives direct connection with world's seaports and points on the Great Lakes. There is also a rail link with both CNR and CPR.

Crown leases are held on 2,958 sq. miles of timber limits in the watersheds of the Bersimis and Sault-au-Cochon rivers on the North Shore of the St. Lawrence. A crown lease is also held on some 192 sq. miles of timber limits on the Montmorency River, the mouth of which is about four miles from the mill.

Wood areas are estimated to contain some 22 to 25 million cords of merchantable timber, the greater part of which is spruce and balsam. It is considered company's crown lease holdings, exclusive of wood purchased, are sufficient to meet long-term pulpwood requirements of the mill. Power is purchased under contract from **Shawinigan Water & Power Co.** under a contract expiring in 1977 with provision for its renewal.

Consolidated net profit for the year ended Dec. 31, 1956, amounted to $5,101,663 ($5,434,388 in 1955). Net sales after deducting outward freight, exchange losses, discounts, returns and allowances was $49,336,542 ($46,586,654). Consolidated working capital amounted to $18,840,716 ($18,943,987).

Capital stock at Dec. 31, 1956, consisted of an outstanding 1,264,270 npv common shares and 160,000 of $2.80 cumulative redeemable sinking fund $50 par preferred shares. During the year 3,083 preferred were purchased and canceled leaving an outstanding 156,917 shares.

Anglo-Nfld.

Anglo-Newfoundland Development Co. produces newsprint, sulphite and groundwood pulp and wrapper. Mill at Grand Falls has a capacity of 264,000 tons of all products annually. This includes 230,000 tons of newsprint, 22,000 tons of unbleached sulphite pulp and 12,000 tons of miscellaneous products including wrapper.

It has hydro-electric power plants on Exploits River with a present installed capacity of over 75,000 hp with further substantial undeveloped power available. Deep sea shipping facilities owned by the company are located at Botwood, some 22 miles from Grand Falls.

Timber limits include some 7,456 sq. miles, partly freehold and partly crown lease. In 1956, company granted timber license to Sioux Lookout area, Ont., on condition company construct a mill to consume 150,000 cord of pulpwood annually with construction to be started by May, 1959. It is understood company plans construction of a newsprint mill with annual capacity of about 200,000 tons. Company has access to 4,000 to 5,000 sq. miles of timber in the area.

Production in 1957 is estimated as follows: 240,000 tons of newsprint (247,231 tons in 1956, a record); 10,000 tons of unbleached sulphite pulp (14,000 tons in 1956). Decrease in estimated newsprint production in 1957 is result of power shortage due to abnormally adverse winter operating conditions.

Plans formulated in 1956 are being further pursued in 1957 with a view of increasing production through greater use of present facilities, resulting in the full use of the company's timber resources of supply wood.

Capital expenditure was $1,851,633. One of the major items in this year's expenditures is the installation of a 250,000 lb. per hour steam boiler. Construction is also under way to modernize the drives on Nos. 6 and 7 paper machines and equipment is being installed for a speed of 1,850 ft. per minute.

Through a subsidiary, **Terra Nova Properties Ltd.**, company participates to the extent of 50% in net profits of **Buchans Mining Co.** which operates an important base metal mine. Another subsidiary, **Gaspesia Sulphite Co.**, operates a bleached sulphite mill in Quebec.

Consolidated net profit for the year ended Dec. 31, 1956, was 17.1% higher than 1955 at $5,425,707 against $4,632,139.

Improvements arise largely from its mining interests. Income was adversely affected by further weakening of the U.S. dollar, particularly in the latter months of 1956.

At Dec. 31, 1956, working capital amounted to $24,049,852 against $21,373,554.

Capital stock consists of an outstanding 5,498,415 of $5 par common shares.

Bowater's Nfld.

Bowater's Newfoundland Pulp and Paper Mills Ltd., Cornerbrook, Nfld., operates one of the largest single integrated pulp and paper mills in the world. Its six machines have a current annual newsprint capacity of more than 310,000 tons and its pulp production surplus amount to its requirements for newsprint manufacture to 50,000 tons.

This is a subsidiary of **Bowater Paper Corp. of North America**, owned in turn by Bowater Paper Corp., in the U.K.

An expansion program is under way expected to increase newsprint production capacity to 340,000 tons annually. Bowater's output is running at the rate of about 1,000 tons per day of newsprint, 150 tons per day of sales sulphite, giving an annual output of some 310,000 tons and almost 50,000 tons respectively.

Timberlands cover an area of over 11,000 sq. miles with some 2,250 sq. miles freehold, the remainder held under license from the Newfoundland Government generally for a term of 99 years from 1938. Production requires an annual cut of about 500,000 cords of wood with a further 100,000 cords cut and shipped to associated mills in the U.K.

Some 85% of the newsprint output is sold to publishers in the U.S. mainly under 15-year contracts dating from 1954. The remainder is sold in the British Commonwealth and overseas

(Continued on page 61)

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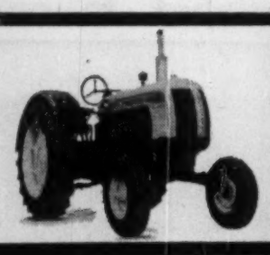
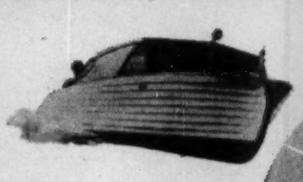
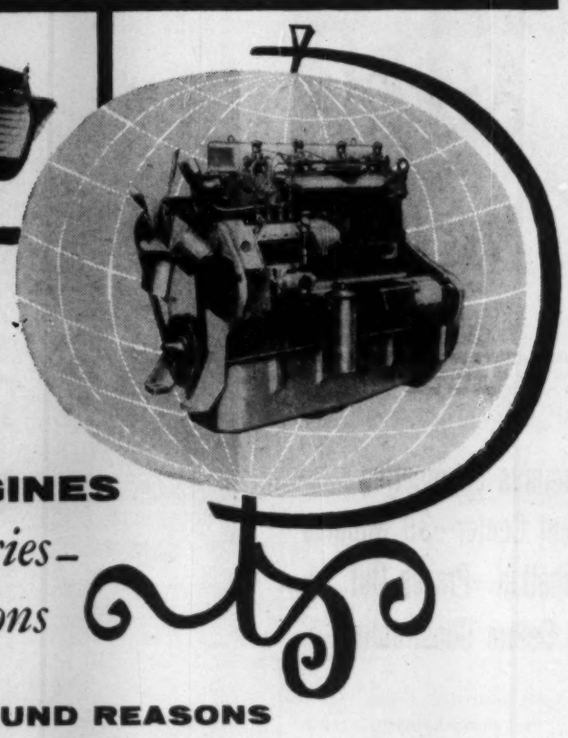


By installing Perkins Diesel Engines in their passenger coaches many Canadian Bus Lines have reduced their fuel costs by as much as 50%.

Perkins Marine Diesel Engines mean lower operating costs, reduced risk of fire and greatly increased operational range. The Grew "Admiral" shown here is fitted with a Perkins P6 (M).





Versatility plus: The Perkins L-4 offers a choice of 22 different flywheel and housing combinations. Also a vast assortment of engine support brackets, radiators, etc. The buyer can very nearly write his own specifications.

Over 400,000

PERKINS DIESEL ENGINES

are in use, in 138 countries—on 300 different applications

—FOR THESE SOUND REASONS

Dependability—On a recent drilling job in Canada a Perkins P6 Diesel Engine was kept in operation for 19 months at one stretch. It worked altogether 12,000 hours and supplied the power for 20,000 feet of drilling. At the end of that time the P6 was still in such good condition, it could have continued working for another 6 months—without overhaul. This was no isolated instance. Stories of similar performance come in from all over the world.

Economy—The low purchase price and very low operating costs of Perkins Diesel Engines make them the most economical power source available anywhere—whether they're used for tractors, combine harvesters, vehicles, boats, generating equipment, or for a host of other purposes. If you make a comparison, on output alone, you'll find that many Perkins Diesels are the lowest priced engines in their class—in the world.

Adaptability—Perkins manufacture industrial, agricultural, vehicle and marine type Diesel engines from 18 HP at 1,000 rpm, to 108 HP at 2700 rpm. In 138 different countries these engines have been adapted to more than 300 different power applications. The Perkins L-4, for example has such a wide range of optional accessories that the buyer can practically design his own engine—at no extra cost.

If you are looking for a source of low cost completely reliable power—for installation in your plant or to incorporate in any of the products or equipment you manufacture, it will pay you to investigate Perkins Diesels. They are backed with a world wide performance record—and by sales and service facilities right across Canada.

PERKINS ARE THE LARGEST MANUFACTURERS OF HIGH SPEED DIESEL ENGINES IN THE WORLD.

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Single arm pulpwood stacker. Also built in double arm, self propelled types.

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...is dependent to a great extent on efficiency of operation. As a result of its many years of close association with the Pulp and Paper Industry, Dominion Bridge offers a wealth of experience in the design and fabrication of equipment for this specialized field.

Whether it be pulpwood stackers or boilers, cranes or digesters, you are assured of efficiency of operation with Dominion Bridge equipment. Our five divisions are at your service.

1. ***Mechanical*** — Cranes, pulpwood stackers and other handling equipment.
2. ***Structural*** — Steelwork for buildings, conveyors, etc.
3. ***Platework*** — Sulphate and sulphite digesters and other vessels.
4. ***Boiler*** — Several types to suit varying operating conditions.
5. ***Warehouse*** — Steel supplies available from nine centres across Canada.

STRUCTURAL STEEL WORK

PLATEWORK

BOILERS

WAREHOUSE STEEL

DOMINION BRIDGE COMPANY, LIMITED

PLANTS: MONTREAL • OTTAWA • TORONTO • WINNIPEG • CALGARY • VANCOUVER
Assoc. Company Plants: AMHERST, N.S. – Robb Engineering Wks., Ltd. • QUEBEC – Eastern Canada Steel & Iron Wks., Ltd. • SAULT STE. MARIE – Sault Structural Steel Co. Ltd. • WINNIPEG – Manitoba Bridge & Eng. Wks. Ltd. • CALGARY – Riverside Iron & Eng. Wks., Ltd. EDMONTON – Standard Iron & Eng. Wks., Ltd.

Dominion Bridge

DOBBIN IS BEING replaced in the woods by giant new machines. This is helping trend towards year-round logging, not possible before.

Newsprint

(CONTINUED FROM P. 60)

market. Surplus sulphite pulp is sold primarily in the U. K.

In 1956 the last stage of one mill expansion plan was completed with the installation of 6,600 kva steam turbine. During the current year a further program is under way, the main item is the rebuilding of No. 7 newsprint machine which is hoped will yield an additional capacity of more than 15,000 tons per annum. To support this, a new digester, a new line of grinders, and a third oil tank are being installed.

All these works were scheduled to be completed this fall. In addition, alterations have been carried out during the past to the old machines which have resulted in satisfactory increase in speed.

Full results of this phase of the plan have not yet come to fruition, as these four machines were affected by a serious fire in April of this year. Although the machines were only down for a short time, they were not yet back to their former output level at mid-July and permanent repairs were then in progress.

Bowater Power Co., whose plant at Deer Lakes supplies the entire requirements for the paper mill, has found a steady increase in demand for power in western Newfoundland. To meet this, a new 13,000-hp hydro electric station is under construction on a local river and it hoped to bring this additional capacity into operation early in 1958.

Outstanding capitalization consists of £2,500,000 of 4½% cumulative preferred stock of £1 and 6,400,000 npv common shares. The latter shares are held by Bowater Corp. of North America. Company has no funded debt.

In 1956, net profit amounted to $4,409,514 ($3,822,264).

Bowater of N. A.

Bowater Corp. of North America is a wholly owned subsidiary of **Bowater Paper Corp.**, London, Eng., incorporated in Canada in 1952. Company is empowered to carry on business in all branches of manufacturing, converting, buying and selling any and all kinds of paper, paperboard, wallboard, paper products, pulpwood and wood pulp. Company has operating subsidiaries in North America to which it furnishes administrative, management and engineering services and for which it provides finance.

Company owns all the outstanding shares of **Bowater's Newfoundland Pulp and Paper Mills Ltd.** (see newsprint and wood pulp section for separate write-ups), **Bowater Power Co.**, and **Mersey Paper Co.** (see newsprint section), all Canadian subsidiaries; and **Bowater's Southern Paper Corp.**, **Bowater's Fibreboard Co.**, and **Bowater Paper Co.**, U. S. subsidiaries. In addition, two new companies were incorporated in 1956: **Bowater's Carolina Corp.** and **Bowater's Research & Development Inc.** It also controls 11 other subsidiaries whose operations include various ancillary activities.

Company also holds a substantial investment in the common and founders shares of **British Newfoundland Corp.**, known as Brinco. Brinco holds options from the Newfoundland Government for water power, leases, mineral exploration leases and timber leases in Newfoundland and Labrador.

Company acquired Mersey as a going concern April 30, 1956, at a cost of nearly $54 million for property, assets and undertakings.

Bowater's Southern Corp. owns and operates an integrated newsprint and kraft pulp mill at Calhoun, Tenn. Installation of a third newsprint machine with a designed annual capacity of some 100,000 tons was begun in 1955 and is expected to come into operation in January next year after which annual rate of production should be about 300,000 tons of newsprint and 45,000 tons of surplus pulp.

The Southern Corp. is expected to have a fourth newsprint machine come in operation in January, 1959, to bring estimated productive capacity to 435,000 tons of newsprint annually. Entire output of all four machines has been sold on long-term contracts so that in 1957 and each following year through 1968 production is matched by corresponding contracts for sale of newsprint.

Plans to install a fourth newsprint machine will require approximately $26 million additional capital. The first three machines were estimated to cost $80 million.

Bowater's Fibreboard Co. of Calhoun, Tenn., was incorporated in November, 1955, for the purpose of constructing and operating a fibreboard mill which it is contemplated will have a capacity of 120 million sq. ft. of board per annum.

Bowater's Carolina Corp. was incorporated on June 12, 1956, to construct and operate a kraft pulp mill. It has purchased a mill site near Catawba, South Carolina, which is said to be excellently situated in regard to pulpwood supply, labor, rail and land transportation, coal, natural gas and water supply. The mill will have a capacity of some 130,000 tons annually and all this pulp will be required to meet increasing demands of converting those of the Bowater organization. It is proposed output be purchased by Bowater of N.A. under a long-term contract and be resold for shipment to mills of the parent corporation in the U. K. Estimated cost of the mill, including timberlands and working capital, is $38 million.

Net profit of Bowater Corp. of North America for 1956, was $9,809,000 ($6,539,000 in 1955) and net profit of $5,228,000 for the 15 months ended Dec. 31, 1954.

In May, 1956, an issue of $17.5 million of 5% cumulative redeemable preferred shares, $50 par, was sold and in December, 1956, an issue of $7.5 million of 5½% cumulative redeemable preferred shares $50 par was sold.

Proceeds were for general corporate purposes and for expansion.

Outstanding capitalization at Dec. 31, 1956, included 350,000 of 5% cumulative redeemable preferred shares, $50 par, and 150,000 of 5½% cumulative redeemable preferred shares, $50 par, and 10 million npv common shares, all of the latter being held by Bowater Paper Corp. An additional 3,000,000 npv common shares have been subscribed for and issued to the Bowater Paper Corp. in 1957, bringing total issue common shares to 13 million.

(Continued on page 62)

GREAT LAKES PAPER CANADA

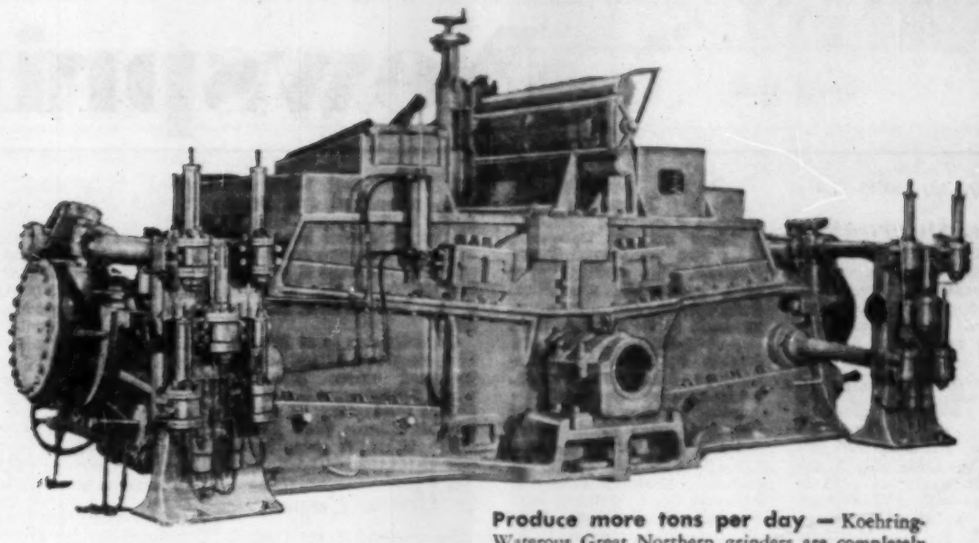
NEWSPRINT PAPER

and

UNBLEACHED SULPHITE PULP

THE GREAT LAKES PAPER COMPANY, LIMITED

FORT WILLIAM, ONTARIO

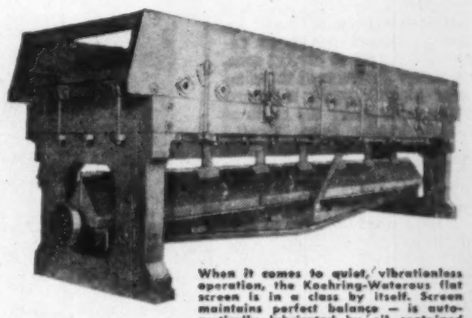


WAYS to increase production on pulp grinding and screening

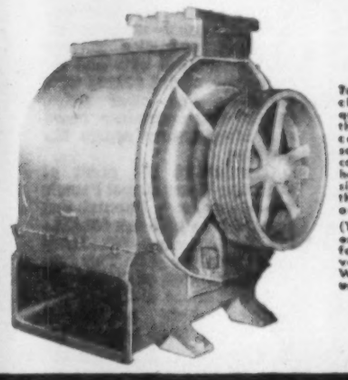
Produce more tons per day — Koehring-Waterous Great Northern grinders are completely automatic, except for loading of wood. At that, only one man is required on single-floor operation to load three of these grinders — capable of producing up to 120 tons of groundwood pulp every 24 hours. Under certain conditions, magazines also can be arranged for automatic loading.

Grinder operation is simplified through the use of synchronized electric control. Governors maintain constant load on the grinder motor. Entire plant load can be controlled by a master watt-meter governor, if desired.

Other automatic features include: capacity recorders, gauging device for stock dam, automatic splash door. Patented, self-centering flanges maintain true-balanced mounting of grinder stone. This Great Northern grinder also has micrometer sharpening lathe, ventilating ducts at each pocket — handles 48 and 64-inch logs. Let us show you how it can increase production of your mill.



When it comes to quiet, vibrationless operation, the Koehring-Waterous flat screen is in a class by itself. Screen maintains perfect balance — is automatically lubricated by oil contained in the bridgetree. All parts readily accessible. Vats and flow-boxes are built of stainless steel, copper alloy, bronze, cypress, or steel.



To get close, accurate classification of top-quality stock, look into this Koehring-Waterous centrifugal Mohawk screen. Equipped with copper alloy runners, it holds tailings to a consistent low percentage throughout a wide range of operating speeds.

(You also will be interested in the new Hydro-foil* screen, latest development in Koehring-Waterous line.) Write us for complete details.

*Canadian and Foreign Patents Pending

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Newsprint

(CONTINUED FROM P. 61)

Cdn. Internat'l

Canadian International Paper Co., a wholly owned subsidiary of **International Paper Co.,** New York, manufactures newsprint and bleached and unbleached sulphite pulps, bleached and unbleached kraft pulps, kraft liner board, kraft paper and bleached kraft board. Newsprint produced consists of about 80% groundwood pulp and about 20% sulphite pulp. About 80% of the newsprint output is sold to publishers in the U. S. and the balance in various countries, principally the U. K., Australia and Latin America.

Bleached sulphite pulp is manufactured at three mills which produce special grades of bleached sulphite pulp used as raw material in the manufacture of rayon, cellulose film, plastic and allied products. Some bleached sulphite is used by papér mills of the parent company and its subsidiaries in the northern U. S.

Company's kraft pulp mill at La Tuque, Que., has an annual capacity of 300,000 tons of unbleached kraft pulp of which 105,000 tons is converted into kraft linerboard, kraft paper, bleached kraft board and corrugating medium with the balance being bleached for various grades of specialty pulps. Approximate aggregate annual capacity of other company and subsidiary plants on a 308-day basis is 1,172,000 tons of which 895,000 tons are newsprint and 277,000 tons are bleached and unbleached sulphite. The mill also produces 250 gallons of turpentine per day.

A new record production of 892,000 tons of newsprint was set in 1956. This reflects partial completion of the $42-million postwar expansion of newsprint facilities which will bring company's manufacturing capacity to 920,000 tons per annum in late 1957. This represents a 60% increase in capacity over original designed capacity, equivalent to a new mill capable of producing 1,200 tons per day, achieved by speeding up existing machines.

Properties of the company and its subsidiaries include the Trois Rivieres and Gatineau newsprint mills in Quebec, the Dalhousie newsprint mill, steam and steam-electric plants in New Brunswick, bleached pulp mills at Temiskaming, Que., and at Hawkesbury, Ont., and a kraft pulp mills at La Tuque.

Timber holdings comprise 25,200 sq. miles, largely in Quebec. The company reports these holdings are considered adequate to provide for the requirements of the present mills in perpetuity.

Subsidiary companies include: **New Brunswick International Paper Co.,** operating a paper mill at Dalhousie, N.B.; **The Continental Paper Products Ltd.,** making paper bags, boxes and specialties, drinking cups and other paper products at its Ottawa, Ont., Cap-de-la-Madeleine, Que., and Regina, Sask. plants.; **International Fibre Board, Ltd.,** manufacturing "Ten/Test" insulating building board at its Gatineau, Que., plant; **International Plywoods Ltd.,** producing hardwood panels at Gatineau; **Northern Veneer & Plywood Co.,** La Tuque, Que.; **Commercial Alcohols Ltd.,** which produces pure ethyl alcohol, shellac and antifreeze at Gatineau; **Industrial Cellulose Research Ltd.,** which does research in cellulose products, rayon etc. at Hawkesbury, Ont.

In May of 1955 Canadian International Paper acquired all outstanding shares of **Hygrade Containers Ltd.,** which makes corrugated shipping containers at London, Ont. During the first half of 1956, Hygrade completed and brought into production a new container plant at Pointe-aux-Trembles, Que. In June of this year it formally opened its third plant, this one being in Etobicoke on the outskirts of Toronto. These three plants furnish an important outlet for container board from the La Tuque mill of the parent company.

Company's capital expenditure will amount to $7 million in 1957 to complete programs in process, mostly in newsprint. Canadian production in 1956 totaled 1,405,483 tons and included: newsprint, 892,653 tons; dissolving and other pulps, 436,350 tons; container board and miscellaneous papers 76,480 tons.

Consolidated net profit of Canadian International Paper's parent company, International Paper Co. in 1956 was $86,628,013, up 4.2% from $83,105,016 in the previous year. This represents earnings of $376.64 per preferred share and $7.05 per common share as against $361.33 and $7.54 respectively in 1955.

In the first half of 1957, International Paper Co.'s net profit and sales declined from the record level set last year. Net profit in the first half at $37,400,102 was down 21.2% from $47,432,363 in the corresponding period of 1956. Sales at $482.9 million compare with $491.4 million a year earlier. In the first half, net profit per share of common stock amounted to $3.04 compared with $3.86 last year.

Chairman J. H. Hinman in a letter to shareholders noted that operating ratios in the paper industry have declined due to the substantial new mill capacity brought into production adding that prices for pulp, paperboard and paper grades have, however, remained firm. Increases have been announced for some grades but all prices fall short of meeting the continuing rise in labor, freight, and material cost, he noted.

Capitalization as at Dec. 31, 1956, comprised 400,000 $4 cum. preferred shares (npv) of which 230,579 were issued and 230,000 outstanding; 24 million common shares $7.50 par of which 12,174,723 were issued and 12,155,162 outstanding.

Cons. Paper

Consolidated Paper Corp. is one of Canada's largest producers of newsprint and pulp and paper products.

Company own five mills with a total daily capacity of some 2,689 tons of newsprint paper, 175 tons of kraft paper, 50 tons of kraft pulp as well as cardboard, wrapper and other miscellaneous products.

About 65% of the company's pulp and paper products are exported to U. S. with considerable tonnage being sold and used in Canada. Balance is distributed to established markets in the U. K., Eire, South Africa, Australia, New Zealand, the West Indies and India. Other export destinations are Mexico, Brazil, Uruguay and Chile.

Paper mills are owned at Shawinigan Falls, Grand'mere, Port Alfred, Trois Rivières and Cap-de-la-Madeleine, all in Quebec. Rated newsprint capacity for 1957 is 828,212 tons, annually. Products of the company include kraft wrapping paper, sold under the name of "Wayagamack Pure Kraft," cardboards sold under the trade name "Laurentide Board" and Kraft Paper Towels under the name "Copaco Kraft."

Capital expenditures in 1956 amounted to $7,238,465 ($6,461,516 in 1955). Modern steam generating plants at Port Alfred and Wayagamack Divisions have been completed and in operation. A new research centre has been completed. A new high yield sulphite plant being built at Belgo Division for completion this year should reduce by 9½% company's wood consumption for newsprint. Wayagamack kraft mills is being expanded.

Capital expenditures in 1957 will apply primarily to reducing costs and improving efficiency rather than to increase capacity. However, 20,000 tons of additional annual capacity can be made available if required on short notice and at moderate cost. Since 1945 company has increased its annual capacity of all pulp and paper products by 185,000 tons or 25% at low capital cost.

Due to the soft newsprint market, company has announced a slight temporary cut-back in production at its Port Alfred, Que., mill, July 31, to be made as required to keep output in balance with orders on hand. The amount of newsprint involved was not disclosed.

Consolidated net profit for the year ended Dec. 31, 1956, amounted to $15,280,969 compared with $13,747,019. For the six months ended June 30, 1957, net profit was $6,920,146 (against $7,832,438).

At Dec. 31, 1956, capital stock consists of an outstanding 5,132,610 npv common shares. There is no funded debt.

CrownZellerbach

Crown Zellerbach Canada Ltd., subsidiary of **Crown Zellerbach Corp.,** San Francisco, is a self-contained, wholly integrated enterprise.

Principal subsidiaries are **Canadian Western Lumber Co.** and **Elk Falls Co.** Canadian Western Lumber, affiliated with Crown Zellerbach Canada since 1953 and a subsidiary since 1956, holds 50% of the capital stock of Elk Falls Co., with Crown Zellerbach Canada holding the remaining 50%.

Canadian Western logs and manufactures lumber and other forest products while Elk Falls manufactures newsprint and kraft pulp. Crown Zellerbach itself operates a pulp and paper mill at Ocean Falls and a converting plant at Richmond, B.C.

Other subsidiaries include: **Northern Pulpwood Ltd., Hudson Paper Co., Bartram Paper Products Ltd., Canadian Boxes Ltd.** Canadian Western Lumber operates an additional five subsidiaries.

At the time of the share exchange offer to remaining outside shareholders of Canadian Western Lumber in mid-1956, Crown Zellerbach Canada offered its first shares to the Canadian public. Some 360,000 ordinary shares of Crown Zellerbach's 7,446,550 are now owned by some 3,000 public shareholders.

During 1956, company's total production of newsprint, paper, paperboard and kraft pulp reached 291,285 tons, up 16.2% over 1955 output. Increase was due to the first production from Elk Falls' new $15-million kraft pulp plant and a 3.2% increase in newsprint output through improved operating efficiencies. Newsprint output at Ocean Falls was also increased despite production cutbacks early in the year due to shortage of water power.

Fraser Mills produced 155.9 million bd. ft. of lumber during 1956 (—4.5%); 83 million sq. ft. of plywood (+13.1%).

Total value of 1956 sales reached $79.5 million, an increase during the year of over $5.1 million. Net income, exclusive of profits on sale of capital assets was $9.4 million or equal to $1.25 per common share. Accounts of Elk Falls and Canadian Western Lumber included for the first time.

Rise in earnings was substantially smaller than the rise in sales because of increased costs, depressed domestic and offshore lumber markets, and the unfavorable exchange situation on sales in the U.S., states President P. T. Sinclair.

Net profit for first six months of 1957 dropped 27% to $3.5 million or 47c per share vs. 64c per share in the same months in 1956. Increased price for newsprint of $4 per ton was more than offset by higher manufacturing costs and exchange loss of $815,000 due to the premium on the Canadian dollar, reports President Sinclair.

Sales of newsprint and other paper converted products rose during first half. Combined pulp and paper and lumber product sales increased by 10% to $39.6 million.

During 1956, company accelerated its program of wood utilization. Recovery of small logs for pulpwood represented 23.5% of the total wood supply for Elk Falls pulpwood mill. Recovery of waste wood chips from Fraser Mills' sawmill residue represented a recovery of almost 53 million bd. ft. of timber or 28.3% of the total annual wood supply of the Ocean Falls and Elk Falls mills.

Additions to property in 1956 cost $23.6 million, almost twice as much as such spending in 1956. Two major projects were the new paper converting plant and box factory at the Richmond Division and the new kraft pulp mill at Elk Falls. (See Elk Falls write-up.) Capital spending in 1957 will total $29 million, it is expected.

Further modernization and expansion is under way at Elk Falls, Ocean Falls and Fraser Mills. Included are plans for: expanded kraft pulp mill; new combination kraft-newsprint mill; new bleach plant.

Capitalization outstanding included at the end of 1956: 19,989 6% cumulative preferred shares $100 par; 7,446,550 common shares $2 par. Funded debt, including current portion, of Canadian Western and Elk Falls amounted to $13.9 million.

(Continued on page 63)

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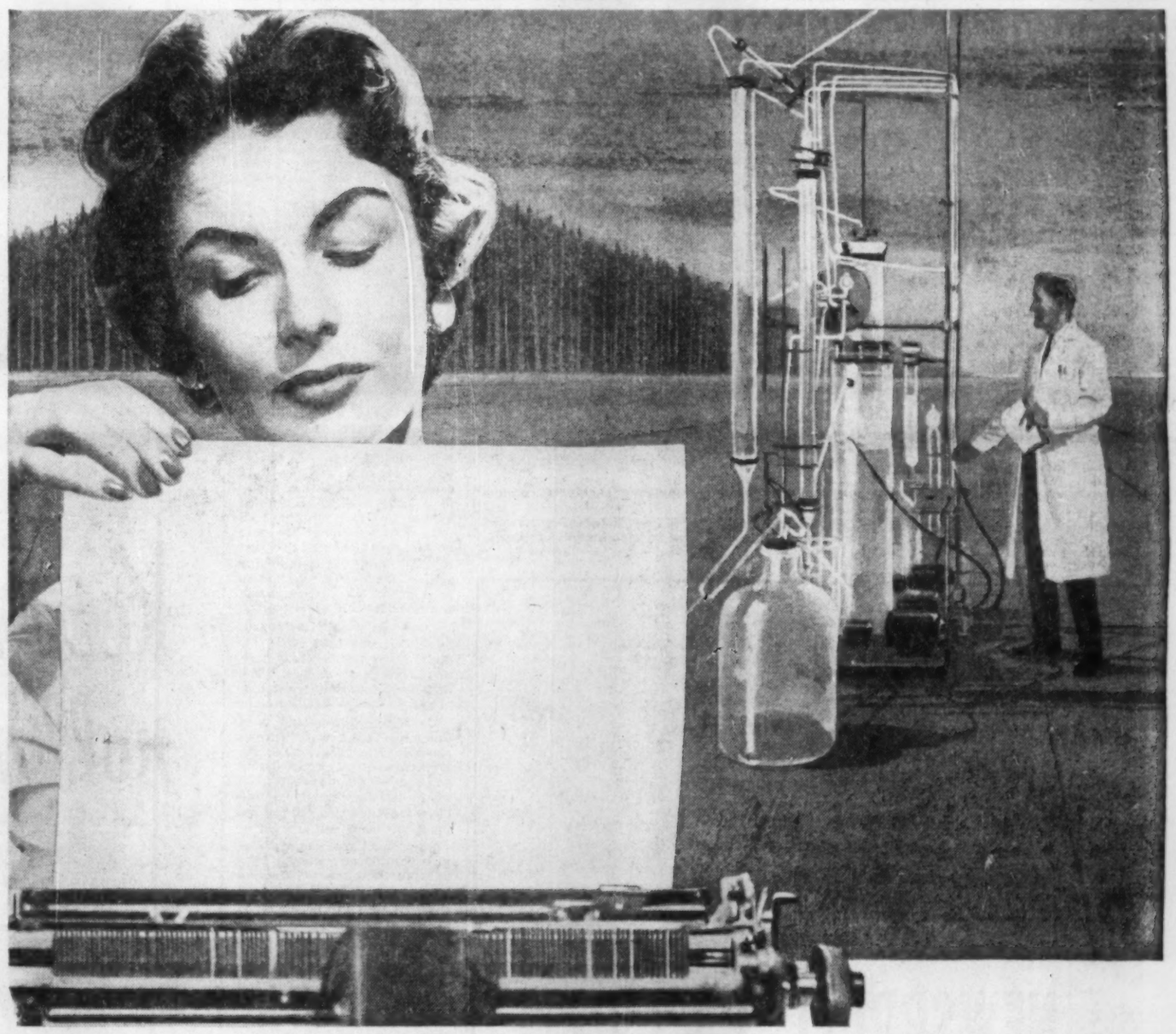
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Newsprint

(CONTINUED FROM P. 62)

Donnacona

Donnacona Paper Co. operates a newsprint mill with groundwood and sulphite pulp plant, near Quebec City. Company also manufactures insulating board in a mill built for the purpose in 1929. Manufacture of acoustical board was undertaken in 1939.

Approximately 90% of company's newsprint output and about 65% of its sulphite pulp available for sale is sold in the U. S. Sale of insulating board is world-wide. A total of 33 capital expenditures projects were under way or completed in 1956. These included an addition to No. 3 paper machine as part of a program to increase its productive capacity. To facilitate spotting and shifting of freight cars a 65-ton diesel electric switcher was purchased.

Figures on annual volume of products for sale are not published separately, but are included in the production figures of its parent company, **Howard Smith Paper Mills Ltd.** (see fine-paper section of this report).

Company owns in fee or leases timber lands adjacent to the St. Lawrence River in Quebec, totaling about 1,721 sq. miles, estimated to contain some 12.6 million cords of pulpwood.

Of the total held under lease or freehold; 752 sq. miles is the company's share of the Bersimis timberlands, purchased by Donnacona and **Anglo-Canadian pulp and paper mills** in 1947 from the **Brown Corp.**

The latest available figures on capacity of company's plants is as follows: newsprint, 105,000 tons per annum; sulphite pulp, 58,000 tons yearly, groundwood pulp, 88,000 tons and insulating board, 100 million sq. ft. annually.

Directly, or through its subsidiary, the **D.P. Power Co.**, company own water power on the Jacques Cartier River at the St. Lawrence, have a present development of 12,000 hp and an ultimate capacity of about 46,000 hp. Balance of power required is purchased under an agreement with **Shawinigan Water & Power Co.**

Consolidated net profit of Donnacona Paper Co. for the year ended Dec. 31, 1956, amounted to $2,105,988 ($1,822,659).

Outstanding capital stock consists of 379,532 npv common shares of which Howard Smith holds 368,221 shares. Funded debt outstanding at Dec. 31, 1956, consisted of 4,550,000 3½% first mortgage sinking fund bonds.

Donohue Bros.

Donohue Bros. Ltd. owns and operates a pulp and paper mill at Clermont, Charlevoix County, Que. Present newsprint is entirely sold under long-term contracts.

Company's pulp and paper mill, located on the Murray River at Clermont some 90 miles east of Quebec City, is equipped with two newsprint machines each capable of producing over 125 tons per day. Hydraulic power is obtained from the Murray River.

At the plant, company is now installing a third newsprint machine, acquired second hand in the U. S., which will have an annual capacity of 30,000 tons. The machine is expected to be in full operation before July 1, 1958, and will increase company's over-all newsprint capacity by 40%. Contractual arrangements have been made for sale of the additional production.

As all of the company's groundwood pulp will be needed for operation of the No. 3 machine, company will therefore cease to be a seller of this kind of pulp as soon as the operation begins.

Originally Donohue Bros. had proposed to build a sulphite pulp mill. Due to current market conditions and rising costs this project was deferred in favor of the additional newsprint machine. Permission was obtained from purchasers of $1,370,000 in 5% series D first mortgage bonds and $1 million in 5½% serial notes to use these funds for acquisition and installation of the new newsprint machine. Originally, these securities had been issued to provide funds for the proposed sulphite pulp mill.

In 1956 company's mill obtained a record production of 75,208 tons of newsprint (71,599 tons in 1955) and groundwood operation was also improved.

During the year company reduced its long-term debt by $286,700, including $50,000 in serial bonds that matured; $130,000 in first mortgage bonds retired through the sinking fund and $106,700 due on purchase timber limits.

Net profit in 1956 was $940,715 compared with $872,373 in the previous year.

As at Dec. 31, 1956 working capital amounted to $4,947,073 up from $4,364,872 a year earlier.

Estimated net profit for the six months ended June 30, 1957 was $318,801 down 11.9% from $498,169 in the first half of 1956.

In March this year, shareholders approved bylaw subdividing each of the outstanding 300,000 npv common shares into 600,000 shares having a par value of $3 1/3 each. There is no other capital.

As at Dec. 31, 1956, company's long-term debt comprised an authorized $5 million in first mortgage bonds of which $1,380,000 in 5% series (due 1967), $1 million in 4¾% series "B" (due 1967), $380,000 in 4% Series "C" (maturing 1957-1965) and $870,000 in 4% Series "C" (due 1975) were outstanding. In addition, balance due on purchase price of timber limits was $825,300.

OF THE INDUSTRY'S annual wage bill of $460 million about 60% goes to mill workers and the remainder to woods workers. No single industry pays more.

Elk Falls

Elk Falls Co., with mills at Duncan Bay, Vancouver Island, is jointly owned by **Crown Zellerbach Canada Ltd.** and one of its subsidiaries, **Canadian Western Lumber Co.**

Company sells production in Western Canada and to U. S. **Crown Zellerbach Corp.** under long-term contracts. Until last year, company produced newsprint only. Annual capacity last year was approximately 100,000 tons.

In mid-1956 a new 400-ton kraft pulp mill began operations and by year end had produced 32,006 tons of kraft pulp. This $15-million mill marked completion of first phase of an expansion program which will have cost $29 million by the end of 1957.

Second phase now under way and scheduled for completion this year, includes:

—Expansion of kraft pulp mill capacity to 500 tons daily.

—New 175-ton daily bleach plant.

—New combination kraft or newsprint paper machine with initial annual capacity of 50,000 tons.

—Addition of highly mechanized sawmill equipped to handle small-diameter logs with annual capacity of 50 million bd. ft.

Kraft pulp is being transported from Elk Falls to Antioch, Cal., where Crown Zellerbach Corp.'s new paper mill has been established. Parent company Crown Zellerbach Canada Ltd. reported its increased sales in 1956 were due to strong demand for paper products, higher price structure, increased production and the first sales of kraft pulp from Elk Falls.

The Elk Falls plant which started to operate in the summer of 1952 has since undergone major expansion which brings its total capital investment up to approximately $55 million, reports President P. T. Sinclair of Crown Zellerbach Canada. When current work is complete company will have a closely-integrated operation.

Consolidated net profit of Elk Falls for eight months ended Dec. 31, 1955 was $1,065,243 as against net profit of $1,189,488 for the 12 months ended April, 1955. Now, Elk Falls statements are consolidated into the statements of Crown Zellerbach Canada Ltd.

Capitalization of Elk Falls Co. at the end of 1956: $1 million 3% first mortgage bonds series A due Dec. 15, 1957-58; $1.5 million 3½% first mortgage bonds series A due Dec. 15, 1959-61; $6.5 million 4½% first mortgage sinking fund bonds due Dec. 15, 1962-70; $3 million general mortgage sinking fund bonds payable 1962-1975.

There are also 1,110,000 common shares npv, owned jointly by Crown Zellerbach Canada Ltd., and Canadian Western Lumber Co.

Great Lakes

Great Lakes Paper Co., Fort William, Ont., manufactures newsprint and unbleached sulphite pulp at its plant on the Kaministiquia River, west of the city. Both rail and water facilities are available to the company.

Newsprint output last year

(Continued on page 64)

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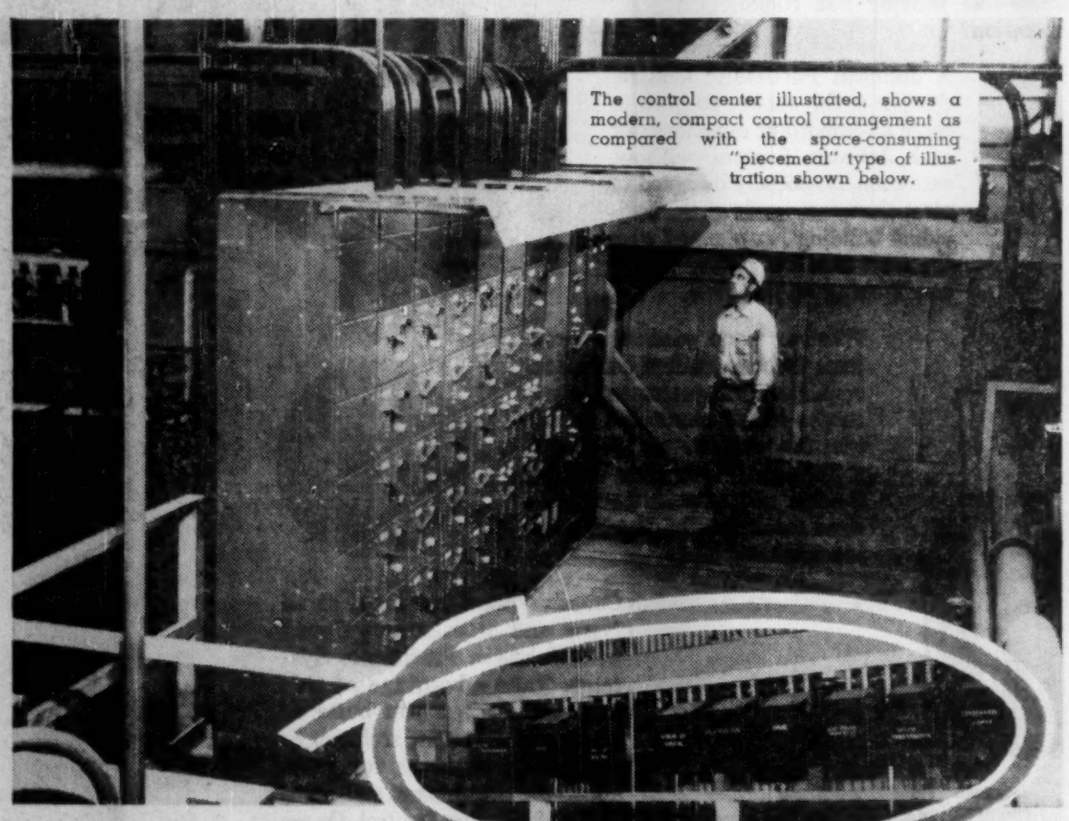

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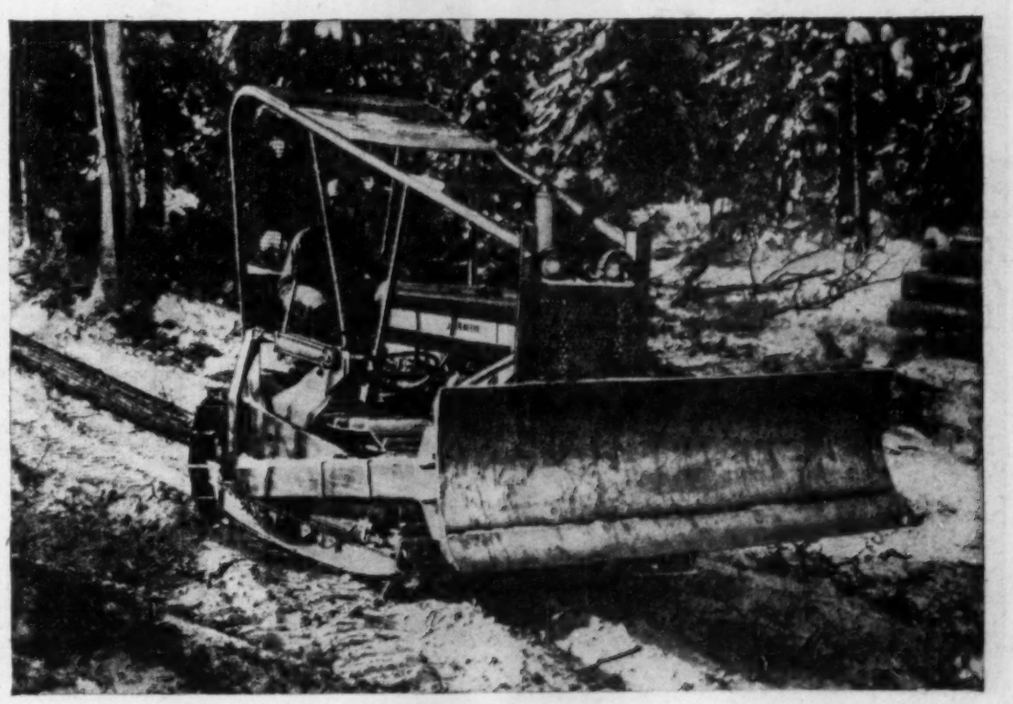

Tree-length skidding (above) is becoming a popular method of moving pulpwood out of the bush in Ontario. With its compactness, maneuverability, and its outstanding lugging power for its size, the "420" Crawler is tailor-made for this job. Logs are skidded through narrow, winding trails without damaging standing timber, and at new low hauling costs.

REPORTS from John Deere owners are unanimous—you just can't beat that John Deere Crawler for making roads, clearing brush, breaking out frozen stacks of logs, pulling heavy loads, and the hundred-and-one odd jobs around a pulpwood camp.

Some of the larger companies now using John Deere Crawlers to replace horses and other tractors include such firms as The Spruce Falls Power and Paper Company, Ltd., Longlac Pulp and Paper Company, Ltd., and the Ste Anne Power Company, subsidiary of the Abitibi Power and Paper Company, Ltd.

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Newsprint

(CONTINUED FROM P. 63)

reached 157,687 tons (154,826 tons in 1955); production of sulphite pulp came to 47,806 tons (40,149 tons). Two newsprint machines were in operation during 1956.

In mid-June 1957 company's new (No. 3) paper machine came into operation. It is now producing at the annual rate of 70,000 tons and will gradually work up to rated capacity of 90,000 tons. This will bring newsprint capacity to approximately 245,000 tons per year and reduce surplus sulphite pulp to about 40,000 tons per year.

Work is now proceeding ahead of schedule with the installation of company's second new machine (No. 4). Capacity will be approximately 110,000 tons per year; estimated cost $19.5 million; operation scheduled for mid-1958.

Company also plans to build a new mill to produce wood cellulose products other than newsprint. Cost is predicted to be about $20 million. Timing is not yet decided.

Subsidiaries include: nonoperating **Superior Timber Co.**; **Patricia Lumber Co.**, operating a saw and tie mill and holding timber cutting rights; **Lake Superior Newsprint Co.** and **Canadian Wood Pulp Corp.**, formed to handle sales in the U. S.; **Tyndara S.A.**, formed in 1955 to facilitate reorganization of sales and service arrangements for company's products.

Company's newsprint sales were valued at $18.3 million last year ($17.8 million in 1955); pulp sales $5.2 million ($4.7 million). Consolidated net profit in 1956 was $2,986,129 ($3,450,118) or $29.86 on the class B shares ($34.50) and $2.39 on the common ($2.78).

Lower net earnings despite record newsprint production and higher sales are due to increased interest charges and full depreciation allowable for income tax on new plant not yet in use, states President C. J. W. Fox.

Gross operating profit for first six months of 1957 remained about the same as a year earlier, but net profits at $1,133,463 were down 29.5%. Largest single factor is high premium on Canadian dollar, reports company president. Exchange losses came to $464,910, more than four times year-earlier total.

Higher interest and depreciation charges are also reflected in the lower net profit figure, but in due course, new earnings from the expanding mill will begin to offset these charges, he notes.

All pulp and paper tonnage that can be produced in 1957 has been sold. Expected output of the new machines to begin operations next year has also been sold under firm long term contracts.

Capitalization outstanding at June 30, 1957 include: $4 million 4% first mortgage bonds series A, due Nov. 15, 1958-65; $11 million 4% first mortgage sinking fund bonds series A, due 1975; $10 million 5% sinking fund debentures, due 1976; 100,000 class B $1.20 cumulative preferred; 1.2 million common shares npv.

New Newsprint Capacity

Year	Rated Annual Capacity	Actual Production	Operating Percentage	Actual* Production	Value* 000s Dollars
	000's of Short Tons			of 2,000 Pounds	
1925 ...	1,823	1,619	88.8	1,537	$106,269
1926 ...	2,121	2,068	97.5	1,889	121,065
1927 ...	2,716	2,290	84.3	2,083	132,287
1928 ...	3,281	2,612	79.6	2,414	144,147
1929 ...	3,468	2,984	86.0	2,725	150,800
1930 ...	3,848	2,791	72.5	2,498	136,182
1931 ...	4,217	2,516	61.8	2,227	111,420
1932 ...	4,142	2,186	52.8	1,919	85,504
1933 ...	4,149	2,282	55.0	2,022	66,960
1934 ...	4,182	2,911	69.6	2,605	86,811
1935 ...	4,263	3,083	72.3	2,765	88,436
1936 ...	4,218	3,535	83.8	3,225	105,215
1937 ...	4,211	3,998	94.9	3,674	126,424
1938 ...	4,535	2,983	63.8	2,669	107,051
1939 ...	4,633	3,175	68.5	2,927	120,859
1940 ...	4,716	3,770	79.9	3,504	158,447
1941 ...	4,703	3,771	80.2	3,520	158,925
1942 ...	4,763	3,455	72.5	3,257	147,074
1943 ...	4,678	3,219	68.8	3,046	152,963
1944 ...	4,726	3,265	69.1	3,040	163,655
1945 ...	4,672	3,592	76.9	3,324	189,024
1946 ...	4,641	4,506	97.1	4,162	280,810
1947 ...	4,729	4,820	101.9	4,474	355,541
1948 ...	4,883	4,983	102.0	4,640	402,100
1949 ...	5,113	5,176	101.2	5,187	467,976
1950 ...	5,227	5,279	101.0	5,318	506,968
1951 ...	5,360	5,516	102.9	5,561	564,361
1952 ...	5,510	5,687	103.2	5,707	600,516
1953 ...	5,723	5,721	100.0	5,755	633,400
1954 ...	5,920	5,984	101.1	6,001	657,487
1955 ...	6,064	6,191	102.1	6,196	688,388
1956 ...	6,242	6,469	103.6	NA	NA
1957 (est.)	6,756	6,550	97.0	....	....
1958 (est.)	7,175	....	....	....	....
1959 (est.)	7,450	....	....	....	....

*Dominion Bureau of Statistics figures. These do not include Newfoundland, except in 1949 and later years, but do include relatively small quantities of hanging paper, poster paper, and side runs for pulping.

James Maclaren

James Maclaren Co., a wholly owned subsidiary of **Maclaren Power and Pulp Co.**, owns and operates newsprint and lumbering division of the parent company. Company and its predecessors have been engaged in lumber business in around Buckingham, Que., since 1864.

Company's properties include a groundwood mill in Buckingham, with an annual capacity of 85,000 tons and a newsprint mill at Masson, Que., with capacity of about 120,000 tons of newsprint per year.

Preliminary program in power development at Dufferin Falls in the town of Buckingham has been completed. Company is proceeding with a development of this water power now used for the hydraulic operation of the Buckingham groundwood mill, for conversion to hydro-electric power which will be used in the operation of the new groundwood mill at Masson. Construction involves a power plant to house two generators of about 25,000 hp each.

The program, which will involve large capital expenditures during the next two years, is scheduled to be completed by the spring of 1959. Company expects the complete integration of Buckingham's groundwood mill with the paper mill at Masson to provide a more economical operation.

Consolidated net profit of James Maclaren Co., in 1956 was $3,038,612, up fractionally from $3,034,533 in 1955. Sales of newsprint, logs, telephone revenue etc. at $15,135,589 increased 4% over $14,499,687 in the previous year. Operating expenses before depreciation, selling and administrative expenses at $9,032,606 were 7% higher than $8,375,668 in 1955.

Consolidated net profit of Maclaren Power and Paper Co., (the parent company) was $3,518,829 or $7.64 per common share down 2% from $3,603,403 or $7.21 per share in 1955. At Dec. 31, 1956, current assets were $22,184,992 ($20,837,544) while current liabilities were $3,386,160 ($3,604,822). Working capital was $18,639,385 up substantially from $17,066,242 a year earlier.

Authorized capitalization of Maclaren P. and P. comprises 750,000 npv common shares of which 500,000 shares were issued and outstanding at Dec. 31, 1956. At that date, a subsidiary **Maclaren-Quebec Power Co.**, had outstanding first mortgage bonds totalling $14,228,000 due 1957-69 inclusive.

Mersey

The new **Mersey Paper Co.** was incorporated under the laws of Nova Scotia on May 7, 1956, under the name of **Scotian Paper Co.**, to acquire all the property and assets and undertakings of the old Mersey Paper Co., which was voluntarily wound-up last year.

Scotian Paper became Mersey Paper Co. in June, 1956.

Purchase price of old Mersey as a going concern was $53,754,501 of which $51,760,290 was in cash, paid on or before July 17, 1956, and the balance by assumption of certain liabilities of the old Mersey.

Mersey Paper issued 3,000,000 npv common shares—all of the common shares now outstanding—to **Bowater Co. of North America** for $15 million in cash, 200,000 5½% cumulative redeemable, $50 par, preferred shares to the public and placed privately U. S. $26 million 20-year 4⅞% series A first mortgage bonds last year. This provided funds for the acquisition. All the outstanding common shares of Bowater Corp. of North America are owned by **Bowater Paper Corp.** of England.

During the past year the following additions have been completed or are in the process of being completed: a new fuel oil storage tank, 30,000 gal. capacity, aluminum hoods for the dryer sections of both paper machines, pressure head boxes for both paper machines and the speed-up of the Harland drive for both machines.

Property at Brooklyn, N.S., consists of a groundwood mill, equipped with three digesters, modernized sulphite mill, and two high-speed newsprint machines producing a mill average of about 460 tons daily. Most of the pulpwood required for the operation of the mill is purchased from local farmers and jobbers.

New Mersey acquired from old Mersey 890 sq. miles of freehold timberlands and has license to another 140 sq. miles from old Mersey. In addition, the former Mersey has signed certain leases and timber licenses of crown lands. It is considered that from these sources an adequate supply for the mill's operations can be maintained.

Newsprint production in 1956 was 140,000 tons (136,668 tons in 1955). Practically the entire output is sold to customers under contract extending for periods of varying duration. About 82% is sold in the U. S., the remainder in Canada, the U. K. and New Zealand.

Apart from a small percentage of power generated in its own steam plant, one mill is operated by the power obtained from hydro electric system of the **N. S. Power Commission** under contract expiring in 1990, but renewable for a further 35 years.

Assets of old Mersey acquired included all the outstanding capital stock in the **Vinland Shipping Co., Liverpool Loyalist Shipping Co., Rover Shipping Co.**, and **Markland Shipping Co.**, which companies owned a total of four steamships.

New Mersey speed-up of two newsprint machines will cost some $4.5 million. Company may some time install a new groundwood pulp mill to provide supplies for other mills of the Bowater organization.

Consolidated net profit for eight months ended Dec. 31, 1956, amounted to $1,885,635. For the four months ended April 30, 1956, old Mersey showed a net profit of $1,158,463. This indicated net profit for the full year including that of the old and new companies amounted to $3,044,098 compared to net profit of old Mersey for the year ended Dec. 31, 1955, of $3,202,879.

As at Dec. 31, 1956, consolidating working capital was shown at $5,119,560 ($2,761,622 in the predecessor company).

Outstanding capitalization consists of 199,295 of 5½% cumulative redeemable preferred shares, $50 par, and 3,000,000 npv common shares.

Minn. & Ontario

Minnesota & Ontario Paper Co., Minneapolis, Minn., produces and markets newsprint and specialty papers, kraft, insulating and building materials and other timber products in the U. S. and Canada.

Company—which is entirely integrated for the manufacture of its products — generates steam and hydro-electric pow-

(Continued on page 65)

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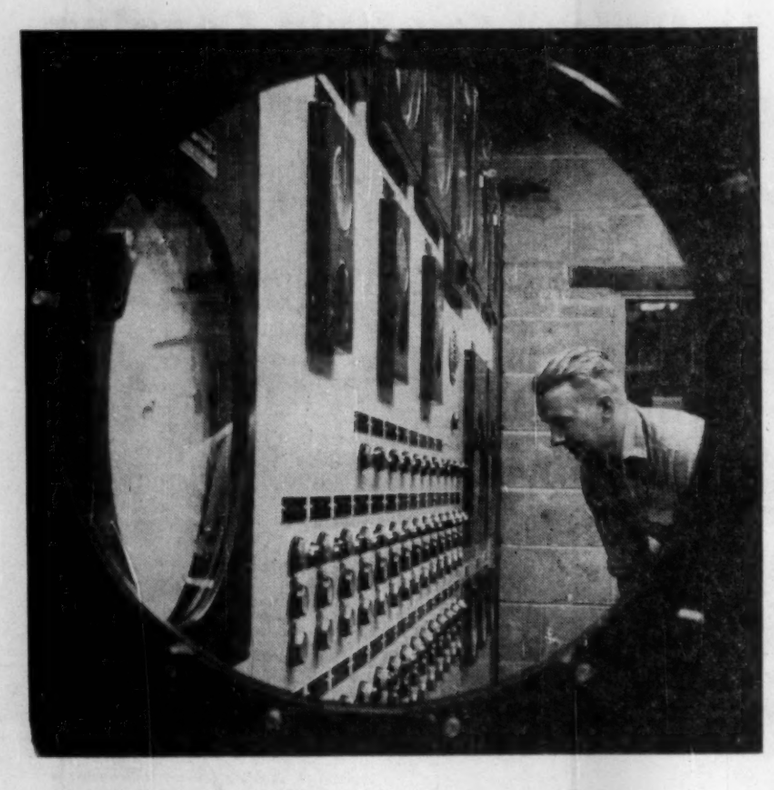

a new look at DRYDEN

The Dryden Paper Company Limited plant wears a brand new look these days.

With its expansion program well advanced, Dryden, a subsidiary of Anglo-Canadian Pulp and Paper Mills, Limited, has now started production of bleached kraft pulp, a basic high quality raw material for packaging and allied fields.

The new bleaching plant will have a capacity of 100,000 tons a year. In addition, Dryden continues to produce the pure kraft pulp and kraft wrapping papers for which the Dryden name has long been known favourably.

Bleached kraft pulp thus joins the other members in the family of Anglo products—newsprint, sulphite pulp, card and box boards.

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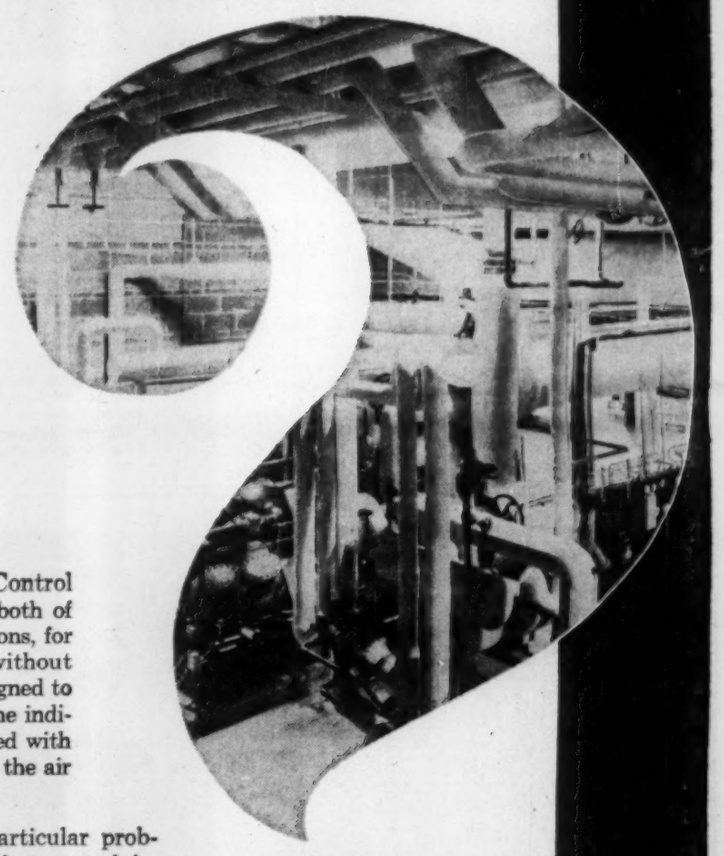

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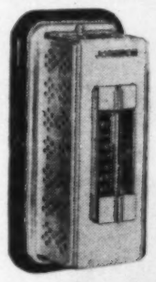

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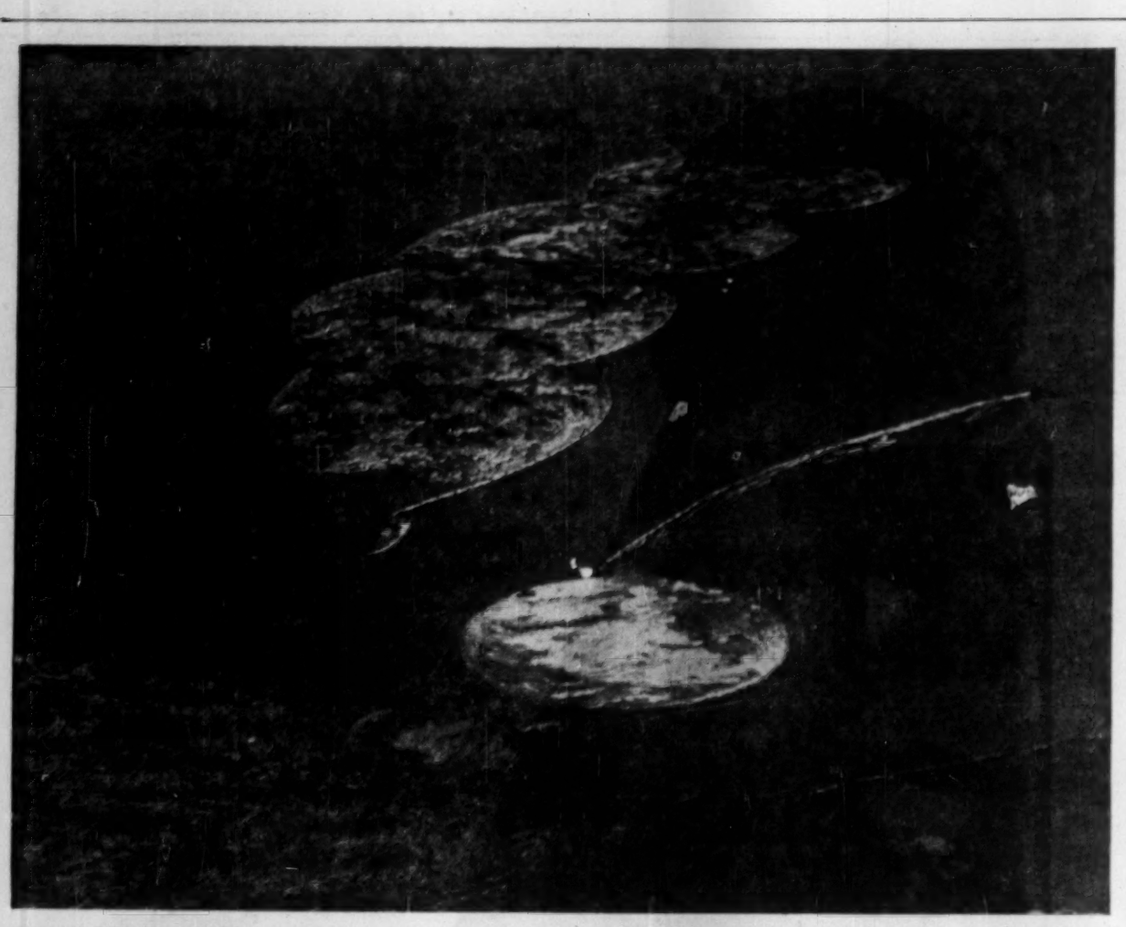

ONE OF THE GREATEST assets of the pulp and paper industry in Canada is the abundance of rivers and large bodies of water on which to move their pulpwood. Many mills are also located on tidewater to market products all over the world.

Newsprint

(CONTINUED FROM P. 64)

er for its plants at International Falls, Minn., Fort Frances and Kenora, Ont. In addition, Mando also operates plants through its National Pole and Treating Division at Minneapolis and Hillyard, Wash.

At the end of 1956, company's paper and Insulite mills had an annual capacity of approximately 570,000 tons:

—International Falls Mill, three paper machines with annual capacity of 66,000 tons of bleached kraft, sulphite and groundwood specialty papers.

—Insulite mill with four machines, annual capacity of 450 million sq. ft. of insulation board.

—Fort Frances mill, annual capacity of 103,000 tons of newsprint. Capacity was increased 25% in 1956.

—Kenora mill, a groundwood pulp mill and two paper machines, annual capacity of 113,000 tons of newsprint.

Early in 1957, company started its new No. 10 newsprint machine at the Kenora mill. Its installation climaxed a 19-month, $20-million construction project. It has an annual capacity of 100,000 tons and this additional output has all been sold under long-term contracts.

Company believes it owns or controls pulpwood sources adequate to meet the needs of its three mills in perpetuity. At the end of 1955, Crown concession in Ontario included 3.4 million acres and company owned 258,000 acres in Minnesota with cutting rights on a further 53,000. At the end of 1956 it had almost completed agreement with the Ontario Government for three additional timber concessions totalling 1.1 million acres.

Capital expenditures amounted to $18.3 million in 1956, bringing the total for the last two years to $29.5 million and to $68.1 million for the last decade.

During the first six months of 1957, net profit was 27.4% lower at $3 million than during the same period last year. This is due to higher operating costs, reduced Insulite sales, greater loss on exchange, according to President R. Faegre.

First half, newsprint shipments were 25% ahead of first six months in 1956; demand for specialty papers relatively steady, Insulite sales remained depressed because of lower rate of residential construction.

This contrasts with the situation in 1956 when consolidated net profit was over $7.5 million vs. just under $7.1 million in 1955. Net sales at $78.1 million were up 6% on a year-to-year comparison.

On the basis of a two-for-one split of company's capital shares, net income in 1956 was equal to $3.01 per share and dividends were paid at the annual rate of $1.40. Corresponding per share figures in 1955 on an adjusted basis were $2.89 and $1.20 respectively.

Early in 1955, an issue of $14 million 3.30% sinking fund debentures due 1975 was sold to retire $6 million 4% promissory notes and to provide additional capital. Company also arranged a stand-by credit for loans up to $6 million by commercial banks up to the end of 1957 and due 1959-63.

Company is not planning further long-term financing, stated President Robert Faegre during the spring months. However, he said, this does not mean an additional major capital expansion program is not under consideration.

Capitalization outstanding includes: $14 million 3.30% sinking fund debentures due Mar. 1975; and 2,689,086 common shares, $2.50 par.

NB International

New Brunswick International Paper Co. is a subsidiary of **Canadian International Paper Co.** and operates a newsprint mill at Dalhousie, N.B., on Baie de Chaleur. Daily capacity of the four paper machines totals about 885 tons (272,000 tons annually on a 308-day basis). A wrapper machine has a daily capacity of about 30 tons.

The mill is fully equipped to produce all its own regular pulp requirements. Electric power is purchased from **Gatineau Power Co.** and the **New Brunswick Electric Power Commission.** It is supplemented by company's own generating equipment.

Timber limits cover some 2,454,000 acres.

Financial and operating statements are consolidated with those of **International Paper Co.**, New York.

Ontario Paper

Ontario Paper Co., Thorold, Ont., and its wholly owned subsidiaries **Quebec North Shore Paper Co.**, Baie Comeau, Que., and **Quebec & Ontario Transportation Co.**, are owned by the **Chicago Tribune** and the **New York News.** Since there is no public investment interest in the companies, financial statements are not published.

Ontario Paper's Thorold mill produces 640 tons of newsprint daily. Capacity is unchanged from a year ago. Company's pulp plants at Thorold and Baie Comeau with combined annual capacity of 60,000 tons of pulp sell output on the open market.

Company also contracts with **Beaver Wood Fibre Co.**, Thorold, to take its newsprint output, supplying the necessary raw materials including pulpwood, sulphite and steam.

For several years company has pioneered in development of nonfibrous chemical products. Now produced commercially are: alcohol, vanillin and Lioxin. Ontario Paper's Thorold plant manufactures alcohol from waste sulphite liquor with an annual output of 850,000 gal. which is sold in Canada to users of industrial alcohol.

A vanillin plant installed in 1952 has a capacity of 575,000 lb. of vanillin annually. It also produces several associated products including Lioxin, all from the lignin in the waste liquor from company's sulphite pulp mill.

A few years ago, company added to its product lines "Aqualig," neutralized lignin sulfonic acid. Product is sold as a dust-retardant and road-binder.

Wood supplies for the Thorold mill come from company's timber limits at Shelter Bay and Franquelin, Que.; Heron Bay, Lake Superior; Manitoulin Is.

Company operates a fleet of 11 lake ships through its wholly owned subsidiary Quebec & Ontario Transportation Co.

For details on Quebec North Shore's operation, see separate write-up in this section.

Price Bros.

Price Bros. & Co. manufactures newsprint, novel news, and transfer paper; patent coated, pulp boards, food containers, bottle cap, tag, ticket, screenings boards; rough and dressed spruce lumber; boards, industrial and crating lumber and dimension stock.

Company owns and operates two newsprint mills, with necessary pulp manufacturing equipment, having combined annual rated capacity of about 480,000 tons of newsprint.

Company Kenogami mill in Quebec has annual capacity of about 256,000 tons while the Riverbend mills, some 23 miles from Kenogami, has an annual capacity of about 224,000 tons. The latter mill is also equipped with cardboard and wrapping paper machine which has a capacity of 17,000 tons per year. Products include mill wrappers, screening boards, pulp board.

Company also operates under lease the **Jonquiere Pulp Co.'s** cardboard and specialty mill with an annual capacity of 30,000 tons.

It owns and operates three sawmills at Rimouski, Matane and Price. Their combined annual capacity is about 60 million ft. board measure, plus 30,000 tons of sulphite chips.

Company is installing new equipment in its Kenogami and Riverbend mills to augment production. The Murdock-Willson Power Development is proceeding on schedule and will come into operation in time to replace the smaller of company's Saguenay power contracts which terminates this fall. The plant will have a potential capacity of 50,000 to 60,000 hp and will replace the 10,000-hp Murdock Falls plant which will be demolished.

Company owns and operates power plants with an aggregate installed capacity of 150,200 hp. They are located at Shipshaw, Au Sable, Chicoutimi and Rimouski.

Last year, the Quebec Government transferred a substantial part of company's south Saguenay timber limits to **Donohue Bros. Ltd.** for which Price Bros. is to receive other limits in compensation though these have not yet been located. On account of this transfer, company will commence cutting operations on its Northern Saguenay Limits which will entail a substantial outlay, it reports.

In 1956, company shipped 512,944 tons of pulp and paper products and almost 46.5 million bd. ft. of lumber, compared with 505,516 tons of pulp and paper products and 62.2 million bd. ft. of lumber in 1955.

Production of newsprint at 478,699 tons was 1.5% greater than 471,613 tons in 1955 while board output at 42,804 tons moved 5.6% ahead of 40,548 tons in the previous year.

Power production at 649.3 million kwh was slightly higher than 646.6 million in 1955.

Capital expenditures for the year at $6.2 million compared with $1.8 million in the previous year.

In 1956, Consolidated net profit amounted to $9,006,939 down slightly from $9,172,873 in 1955.

Capitalization as at Dec. 31, 1956, comprised $6,835,000 3¼% first mortgage bonds due 1966, of which $5,935,000 was outstanding; $5 million 4% preferred shares ($100 par) issued and outstanding; and 2,716,336 npv common shares of which 2,191,428 were outstanding.

Current assets were $55.3 million ($56.2 million in 1955) and current liabilities almost $12.1 million (almost $12.1 million), leaving a working capital of $43.3 million (44.1 million).

Powell River

Powell River Co., Vancouver, is the largest producer of newsprint on the west coast, a major producer of sulphite pulp and through wholly owned subsidiaries, manufactures lumber and other wood products.

Company has some 15 wholly owned subsidiaries on the Canadian west coast including logging, navigation, lumber and corrugated container plants. Late in 1956, it purchased **Brooks-Scanlon Inc.**, sawmilling and lumber business in Bend, Oregon, including 147,000 acres of fee simple timberland in the Deschutes Plateau region where Powell River will build a pulp mill.

Expansion into U. S. operations is not expected to curtail plans for company growth in Canada where capital expenditures in 1957 are likely to reach $7 million.

Operating the world's largest newsprint mill at Powell River, 80 miles north of Vancouver, company sells products in Canada, U. S. and dependencies, U. K., New Zealand, Australia and the Orient.

Company, in conjunction with **Aluminum Co. of Canada**, and through a jointly owned subsidiary **Kitimat Pulp & Paper Co.** is surveying the Kitimat area as a possible site for a pulp and paper mill. It is now reported that no action will be taken on the project this year.

Company also controls 740 sq. miles of timber resources along the north coast area and on the Queen Charlotte Is. In addition, Powell River owns a 450-acre experimental forest at Powell River and is developing a second for further experimental purposes.

Developing 95,000 hp hydro-electric power, Powell River installations include: 53,000 hp at Powell Lake watershed; two 21,000 hp units at the Lois River watershed. Company also has an auxiliary steam plant of 7,200 hp and buys additional power from B.C. Electric.

Since 1952, company has made heavy capital expenditures to speed up existing newsprint machines and buy new ones. Early this year the new No. 9 machine went into operation with an annual production capacity of some 90,000 tons.

In the first six months of 1957, consolidated net earnings were $4.3 million, or $1.02 per share vs. over $5.7 million or $1.37 per share in the same period last year. Decrease is attributed to increased costs, weakness in log and lumber markets, the high U. S. dollar discount and B. C. logging tax.

This continues the pattern begun in 1956 when consolidated net profits were $10.9 million or $2.60 per share as against $12.2 million or $2.90 per share in 1955. Reasons for the decline were the same.

In 1956, newsprint output reached 402,889 tons compared with 392,321 tons in 1955. Increase was due to speed-up program on No. 7 machine and higher speed of other machines.

Output in first half of this year amounted to 227,058 tons vs. 196,641 tons in the first six months of 1956, with most of this increase reflecting the addition of No. 9 machine.

Lumber production in the first half came to 21.5 million fbm, down 35% and lumber sales were 24.9 million fbm, off almost 20%. Production of corrugated container division increased 10.2% in the first half of this year and sales rose 5.4% to 157.7 million sq. ft.

Company expects to install a new high-pressure boiler at Powell River and have it in operation before the end of 1957. An addition to the container plant was completed late this spring and improvements to cedar sawmill have been finished since that time.

President H. S. Foley stated recently that it is anticipated that all pulp production will be sold in 1957 and company has long-term contracts for entire newsprint production for 1957 despite some indications of oversupply of newsprint on the west coast.

Outlook for container division is also favorable, he states, but there is no indication of improvement in lumber markets.

Capitalization outstanding consists of 4.2 million ordinary shares, no par.

(Continued on page 68)

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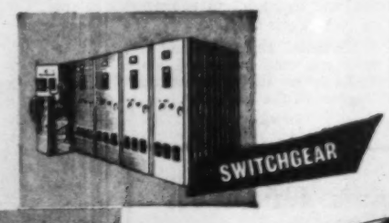

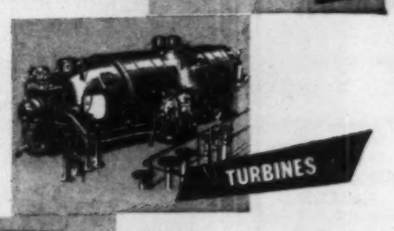

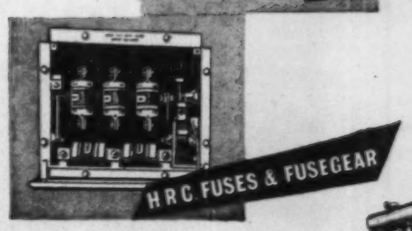

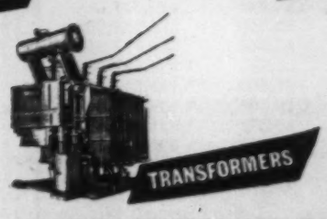

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Newsprint

(CONTINUED FROM P. 65)

Que. North Shore

Quebec North Shore Paper Co. is a wholly owned subsidiary of **Ontario Paper Co.** and operates a modern newsprint mill at Baie Comeau, Que.

The fully integrated mill has been in operation since 1938. It has two newsprint machines both fitted with modern vacuum pick-up equipment and annual newsprint capacity is in excess of 165,000 tons. A pulp sales plant of 40,000 tons annual capacity producing both sulphite and groundwood pulps is also part of the Baie Comeau operations.

Company has extensive timber limits for wood supplies. Entire paper output is contracted for New York Daily News and Chicago Tribune.

Quebec North Shore Paper Co., through an exchange of interests, is presently engaged with **British Aluminium Co.** in a $150-million primary aluminum-smelting project at Baie Comeau through the newly formed **Canadian British Aluminium Co.**

Capital stock, exclusive of directors' qualifying shares in CBA, is owned 60% by British Aluminium and 40% by Quebec North Shore.

Quebec North Shore operates a power plant on the Outardes River with an installed capacity of some 77,000 hp. **Manicouagan Power Co.,** in which CBA and QNS have joint interest, is underway with an expansion program to increase capacity to 250,000 hp. It is expected this additional development will be completed late in 1957.

Stage one of the aluminum smelter of 40,000 long tons of aluminum annually is expected to begin operation by the end of this year and stage two of a further 40,000 long tons in early 1959.

The output of the Baie Comeau mill together with that of Ontario Paper Co. at Thorold, Ont., is about 437,000 tons of newsprint and pulp per annum. With the inclusion of by-products such as alcohol and vanillin have an annual market value of about $57 million.

Richmond

Richmond Pulp & Paper Co. of Canada Ltd., produces newsprint as well as groundwood and semichemical pulp. It is a unit of the **Kruger organization** of Montreal and company's mill is at Bromptonville, Que.

Present level of mill's production is upward of 115,000 tons of newsprint annually, sharply higher than output of 18,805 tons in company's first year of operation which ended June 30, 1951.

In the following year, company embarked on its recently completed long-range expansion program which involved outlay of $12 million including additions to existing buildings to house a second and third newsprint machine, all new electric grinder equipment, second new semichemical pulp plant, and a bleaching installation to permit bleaching of a portion of the mill's cooked pulp production. The new construction has added about 85,308 sq. ft. of floor space to the original Bromptonville mill.

The original existing newsprint machine was speeded up and modernized and both shipping and materials handling equipment throughout the mill has been expanded to facilitate handling of company's increased production.

Under an Act of the Legislative Assembly of the Province of Quebec, providing for the rational exploitation of the forest lands of the province, company has been granted a renewable cutting allowance on about 300 sq. miles of crown land. This tract is located in one of the best high density black spruce areas of the province along the new Chibougamau railway in northern Abitibi. This assures company a continuous wood supply for what it describes as its rapidly growing production and sales volume.

In line with the foregoing, company has recently completed major changes in its barking and wood-handling facilities, including installation of a new jack ladder, complete conveyor system, two 60-ft. outside drums, side by side, and a new stacker. To handle the additional wood flow, new unloading facilities have also been installed at Sherbrooke.

New accounting and administration offices have been provided in a separate building to accommodate the increase in these functions of the business. A good part of the new building and expansion program was handled by **G. & B. Kruger Engineering Co.,** one of the seven companies which now make up the Kruger organization. The remaining five companies are **Kruger Paper Co.,** Montreal, Que., fine paper wholesalers; **Sherbrooke Paper Products Ltd.,** Sherbrooke, Que., manufacturers of corrugated boxes; **Aluminum Extruders Ltd.,** Ste. Therese, Que., manufacturers of extruded aluminum shapes; **Nesco Aluminum Ltd.,** Vancouver, B.C., manufacturers of corrugated aluminum roofing; **Papeleo Venezolanos,** Guacara, Venezuela, manufacturers of tissue paper.

Richmond newsprint is sold to publications in Canada, U. S., Europe and South America under long-term contracts. Distribution is handled from its headquarters in Montreal and through a sales agency in New York City.

Financial and operating figures are not published since there is no direct investment interest in the company.

GIANT LOGS are reduced to chips to make pulp. This whole-log chipper reduces a 30-ft. long, 26-in. in diameter to small uniform chips in half a minute.

St. Lawrence Corp.

St. Lawrence Corp. manufactures newsprint, shipping case materials, kraft fibre and specialty papers, boxboards, unbleached sulphite, kraft, semichemical and groundwood pulps.

Company owns and operates five mills, of which three are in Quebec at Trois Rivieres, Dolbeau and East Angus and two are in Ontario at Red Rock and Nipigon. By the end of this year these mills will have a combined annual saleable capacity of about 696,000 tons of pulp and paper products of which 43,000 tons are market pulp, 234,000 tons are kraft products and 419,000 tons are newsprint.

Total capacity of newsprint mills include 231,000 tons at Trois Rivieres, 127,940 at Dolbeau and 60,060 tons at Red Rock. Sale of newsprint paper last year amounted to 393,216 tons against 382,738 tons in 1955. In the first six months of 1957, company sold 199,363 tons.

Timber limits held by the company under conditional leases, licenses and rights from the provincial governments, together with about 140 sq. miles in freehold and the equivalent of about 54 sq. miles held in freehold by a wholly owned subsidiary in the U. S., have an aggregate area of about 9,091 sq. miles. This area is estimated to contain at least 53.6 million cunits of pulpwood made up of spruce, balsam, jackpine and usable hardwood. A cunit represents 100 solid cu. ft. of wood.

Principal market for company's output of newsprint is the U. S. although part of the output is sold overseas and in the domestic markets. Practically all of its kraft products are sold in Canada. Its surplus pulps are sold in Canada, the U. S. and overseas.

Company spent $41.8 million between 1952 and 1956 inclusive on capital account on mill plant and equipment, timber limits and woodland improvements and equipment. Additions and improvements to capital assets improved the manufacture of finished products and increased annual saleable capacity of pulp and paper products from about 530,675 tons in 1951 to about 642,700 tons by 1956.

In October, 1955, company started a program for modernization and speed-up of plant and equipment at the Trois Rivieres and Dolbeau mills, involving expenditures estimated at $9 million which is scheduled for completion by the end of 1957. Purpose was to increase operating efficiency of these mills and to expand annual saleable capacity of newsprint by 18,500 tons at Trois Rivieres and 21,500 tons at Dolbeau.

Benefits from modernization and speed-up at these mills are about 75% realized. This is reflected in the estimate of capacity at the end of this year.

In April, 1957, company announced a program to expand kraft pulp capacity at the Red Rock mill (see pulp section). When the programs there are finished, total annual saleable capacity of pulp and paper products will approximate 755,000 tons.

Based on results in the first half of 1957 and on prospects for the balance of the year, it is estimated annual sales will equal those of 1956.

Consolidated net profit in the first three months was $1,602,802 ($1,941,748 in the first quarter of 1955) and in the first half consolidated net profit was $3,555,093 ($4,117,217). Net sales were $38,838,815 ($39,641,776), but showed an increase at $19,944,613 in the second quarter compared with $19,874,159 in the second quarter last year.

Shareholders in May, 1956, approved creation of 500,000 $100 par preferred shares of which 150,000 shares designated as 5% cumulative redeemable preferred shares, series A, were offered at $99 per share to yield 5.05%.

In December, 1956, the then authorized two million common shares of $1 par were converted and subdivided into eight million common shares, npv, on the basis of 4-for-1. An additional two million npv common shares were created. As a result of this change, company now has 10 million shares authorized of which 4,454,708 common shares are outstanding.

Dividends have been declared at rate of $1 per annum for new common shares, equivalent to doubling of the former dividend rate.

By June 30, 1957, company had redeemed $4,005,000 of the $30 million first mortgage sinking fund bonds issued in 1952. It also held $594,500 of these bonds in anticipation of future sinking fund requirements.

Spruce Falls

Spruce Falls Power & Paper Co. operates a newsprint mill at Kapuskasing, Ont.

Just over 50% of the outstanding common stock is owned by **Kimberly-Clark Corp.** Neenah, Wis. New York Times owns the minority interest.

While the Times buys the largest proportion of its newsprint requirements from Spruce Falls, the mill also sells to various other U. S. newspapers including the Philadelphia Inquirer and the Washington Star.

At Spruce Falls, company operates four paper machines, a mechanical pulp mill with capacity to supply the paper mill's requirements and a chemical pulp mill able to supply the newsprint mill and the pulp requirements of **Kimberly-Clark Corp of Canada.** Plant also supplies parent company with sulphite pulp.

In 1955 company began a program to speed up its newsprint machines. Objective was to increase capacity by 40,000 tons annually within four years. After only very slight improvement in 1956, work this year will boost capacity by an estimated 9,000 tons, although actual production in 1957 may be a little lower than in 1956 due to down time while rebuilding takes place.

Sales in 1956 totaled 320,506 tons (311,398 tons). This included 247,666 tons of newsprint (245,229) and 72,840 tons of pulp (66,169).

Net sales amounted to $35.5 million, up from 1955's $33.6 million. Net profit was $5,452,000, over $301,000 higher than a year earlier.

Pulp prices were increased $5 a ton and newsprint prices $4 a ton during the year. These increases partially offset higher production costs and the adverse effect on revenue from U. S. sales of the premium on the Canadian dollar. But higher volume of production was the primary factor behind the higher net earnings.

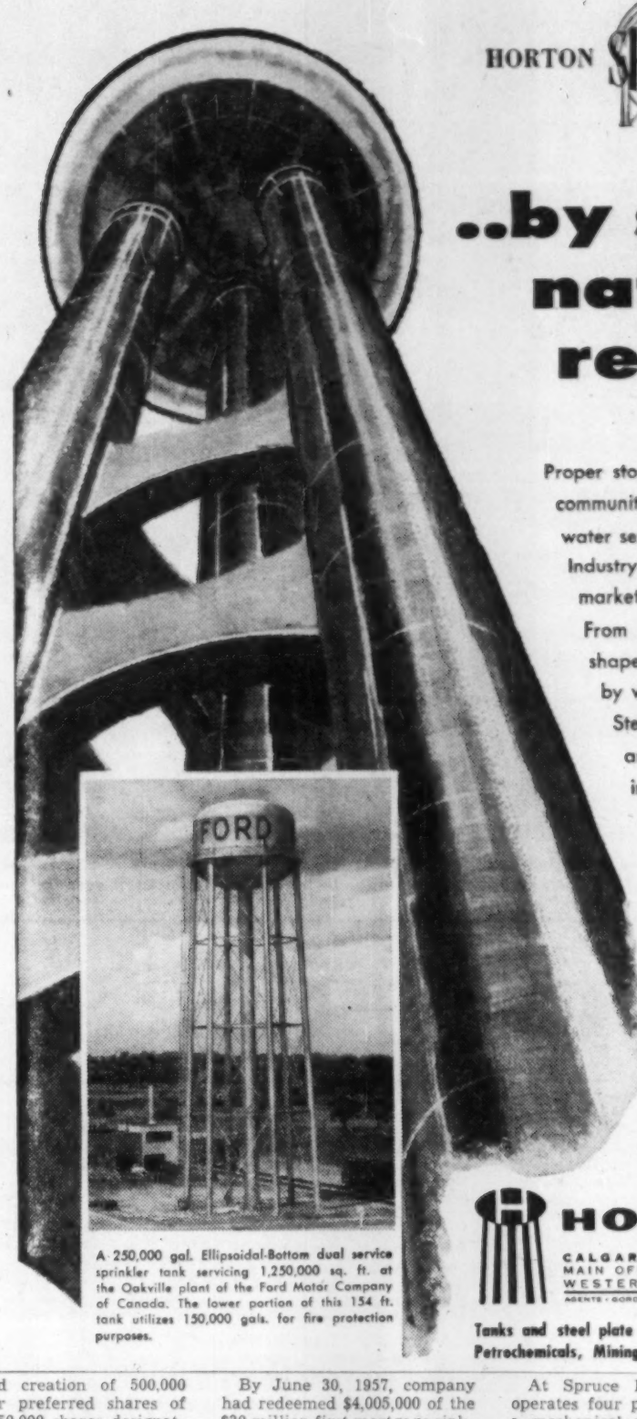
Kimberly-Clark's investment in Spruce Falls was carried on parent company's books at $2,079,501 (unchanged from year before) and equity in net assets of company was $13,575,903 in U. S. funds ($12,202,304).

The Industry's Growth

Here's the growth of the pulp and paper industry over the last 86 years:

	Pulp and Paper Mills	Total Employees excluding Woodlands	Gross Production
1871	21	760	$ 1,071,651
1881	41	1,588	2,509,993
1891	58	2,817	3,633,257
1901	53	6,236	8,627,577
1911	72	9,766	23,226,479
1921	100	24,619	151,003,165
1931	103	26,669	174,733,954
1941	106	37,154	334,726,175
1945	109	39,996	398,805,505
1946	113	44,967	527,814,916
1947	115	49,946	706,971,628
1948	117	51,924	825,857,664
1949	123	52,050	836,148,393
1950	123	52,343	954,137,651
1951	126	57,291	1,237,897,470
1952	128	57,803	1,157,887,657
1953	130	58,194	1,179,665,443
1954	130	60,837	1,241,558,451
1955	130	62,205	1,326,938,138
1956 (est.)	130	64,500	1,400,000,000
1957 (est.)	130	65,500	1,475,000,000

HORTON SHAPES NEW HORIZONS



A 250,000 gal. Ellipsoidal-Bottom dual service sprinkler tank servicing 1,250,000 sq. ft. at the Oakville plant of the Ford Motor Company of Canada. The lower portion of this 154 ft. tank utilizes 150,000 gals. for fire protection purposes.

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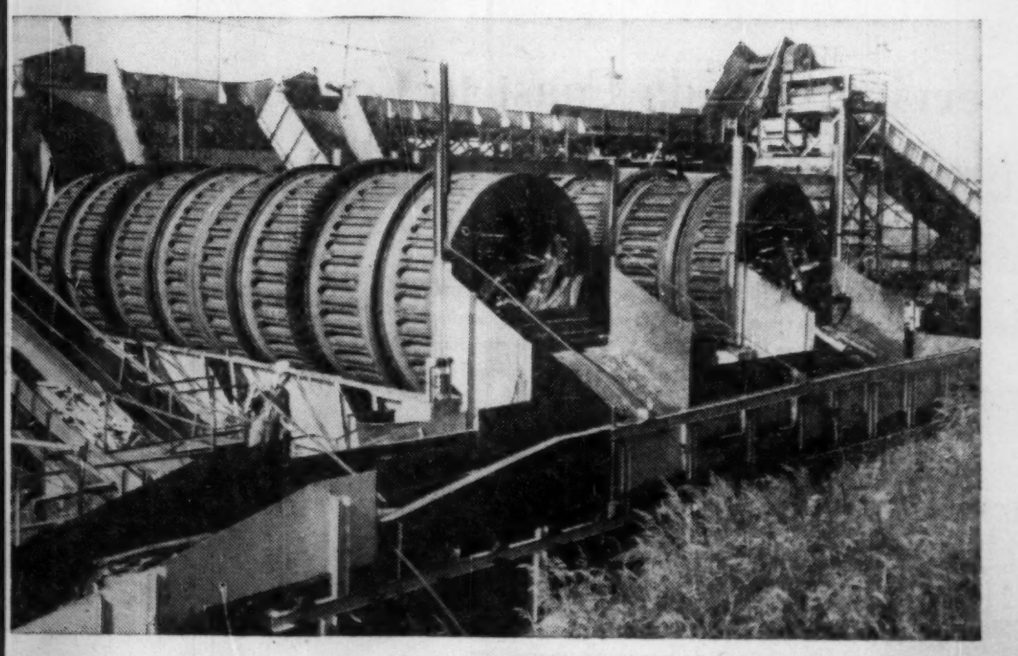
Serving the Pulp and Paper Industry

An installation of C-I-R "Weldrum" Barkers at an Eastern Canadian mill.



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Three out of every five newspaper pages in the world are printed on Canadian Newsprint. The manufacture of pulp, paper and other cellulose products is Canada's largest industry. The increasing demand from foreign and domestic markets, together with the continual research covering new uses for these products, continues to call for an ever increasing yearly output.

Canadian Ingersoll-Rand are proud of the important part their equipment plays in the production demands of this mammoth industry. Research Engineers at the C-I-R plant at Sherbrooke, Quebec, are continually searching for improved methods to help "produce more at less cost."

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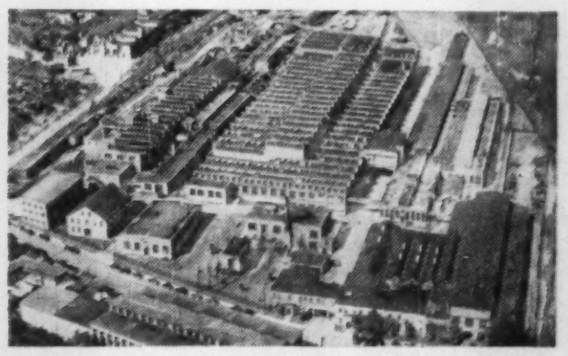

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Industry Spending $17 Million Yearly on Research

Research: The key to new uses for pulp and paper and allied products.

The Canadian industry is probably spending some $13 to $17 million annually on research and development at the present time or about 1c for each dollar of gross sales.

On the basis of some 1,600 manufacturing companies in the U. S. surveyed a few years ago where the average was 2c per sales dollar, the Canadian average is low. However, the Canadian industry has doubled its rate of spending within the past 10 years through establishment of new company laboratories and expansion of existing ones.

A rough estimate of annual operating expenditures for research totals $8 million and it is considered fair to say that $4 million to $8 million more is spent annually in translating research findings through development stages to mill use.

In the forefront in this field is the Pulp and Paper Research Institute of Canada whose research budget has tripled since 1950.

The Institute's research program comprises a basic program, contact research and technical services. The first of these activities is supported by assessments from about 40 companies, representing more than 100 mills and about 90% of the total production of the Canadian industry; by a basic grant from the Canadian Pulp and Paper Association; and by appropriations from McGill University.

In 1958, the Institute will have additional facilities through a new $2 imillion building being constructed by the Government of Canada in lieu of its previous annual financial grants.

This will be at Pointe Claire, on the western outskirts of Montreal, and will house institute staff. One wing of the building will contain laboratories typical of a college chemistry building, one will provide labs for engineering research and another administrative offices.

Exploratory Studies

Institute research is of interest to the industry as a whole, and projects range from studies of the growing seedling in the forest to the converted pulp and paper products. Emphasis, however, is primarily on fundamental, exploratory studies.

The Institute is a centre for broad, long-range and uninterrupted studies of basic principles which individual pulp and paper companies would find it difficult to justify in terms of immediate applied objectives. It is also a centre of highly specialized equipment and manpower which individual companies would find difficult to keep occupied on a continuous basis.

In addition to its continuing staff of about 160, the Institute has some 25 graduate students working on fundamental projects relating to pulp and paper technology which also serve as their thesis topics. Graduate student work includes behavior of the material of which wood is made such as cellulose, lignin, resins, sugars and other carbohydrates.

In addition, graduate students work in the physical chemistry of fibres. For example, they investigate forces which cause cellulose fibres in water suspension to mat together to form paper, as well as chemical and mechanical engineering phenomena relating to friction losses occuring when pulp flows through pipelines.

There are other aspects to the industry's work. Here are some of the major projects in the institute's basic program:

1. **Paper making studies:**

Studies of paper formation, investigation of the influence of fibre properties on initial strength development of paper webs. Effect of fibre flocculation on the behavior of fibre suspension and the uniformity of paper.

2. **Waste utilization:**

The disposal, and if possible utilization, of all types of waste from the industry — bark, liquor, slash, etc. One of the most promising new developments in this line is the atomized suspension technique.

Solutions or slurries to be treated are atomized into the top of a tower with heated walls, thus creating a fine divided suspension of droplets in their own vapor which evorates to dryness and can then be subjected to chemical reactions within the same tower.

The application of this technique has already been successfully tested on a small pilot plant scale in the recovery of chemicals and heat from kraft, soda, neutral sodium semi-chemicals and acid sodium sulphite spent liquors. It has also been used on other mill wastes and slurries, and on various mineral solutions.

It is expected that ultimately institute-developed equipment will be widely used, processing not only industrial but also sanitary waste which will assist in reducing contamination and pollutions of the nation's waters.

Plans are already being carried forward to test this last application on a pilot plant scale.

3. **Woodlands:**

Research includes silvicultural studies of forest regeneration, such as forest seeding and planting techniques and use of growth stimulants; biological studies of insect control; and engineering studies as a possible way of reducing energy consumption and improving products.

A basic study of grinding is under way to determine the fundamentals governing the mechanical separation of papermaking fibres from the parent wood.

This may lead to a new, improved process for producing mechanical pulp.

4. **Chemical pulping:**

Of particular importance to the field of resources conservation is the Institute's development work in high-yield pulping processes, aimed at recovering the greatest possible quantity of wood fibres from each unit of wood.

Experiments are being made on the use of hardwoods in paper making to supplement or supplant the traditional softwoods.

A major change in pulp and paper technology in which the Institute is providing basic data, concerns new methods of chemical pulping which will permit continuous rather than batch processing.

Production control:

The Institute carries out research on improving production control and product quality, which involves modifying existing control methods and developing new ones. Related to this has been the development of new instruments, among which have been the Canadian Standard Freeness tester, the PAPRIC electronic dirt counter, the Johnston Fibre Classifier, and the Chapman Smoothness Tester.

At present, a recording flow instrument is being developed for rapid and continuous measurement of lignin concentration in cooking liquors by ultra-violet absorption.

In addition to its basic program of research, the Institute undertakes contract research projects for individual companies or groups of companies in the pulp and paper or allied fields.

The greater number of these co-operative contracts have been concerned with problems of particular segments of the Canadian pulp and paper industry such as investigation of the causes of corrosion in alkaline pulping equipment and the current project investigating the rapid deterioration of paper machine wires.

The Institute also co-operates with outside agencies on special projects, maintains a close liaison with the National Research Council and has carried out joint projects with the Applied Chemistry Division and other divisions of that organization.

At present, it is engaged in a practical study of spruce regeneration in mixed wood stands with two pulp and paper companies, a research foundation, and federal and provincial governments.

The Institute also provides a broad range of technical information services to the industry and to some extent to other industries and to the public. It maintains a specialized library for this purpose which supplies bibliographies, abstracts, translations, and critical reviews to its own scientific staff and to the industry.

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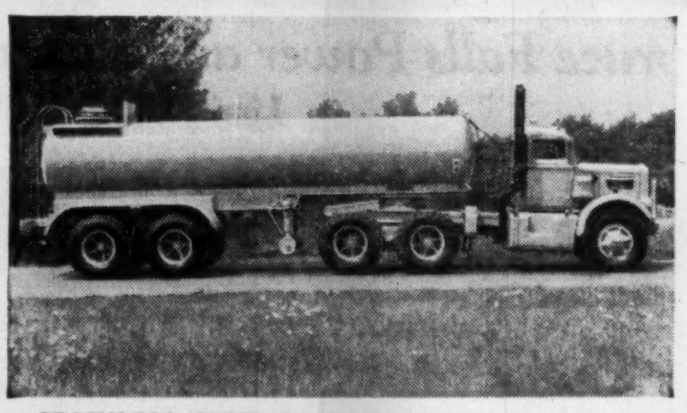

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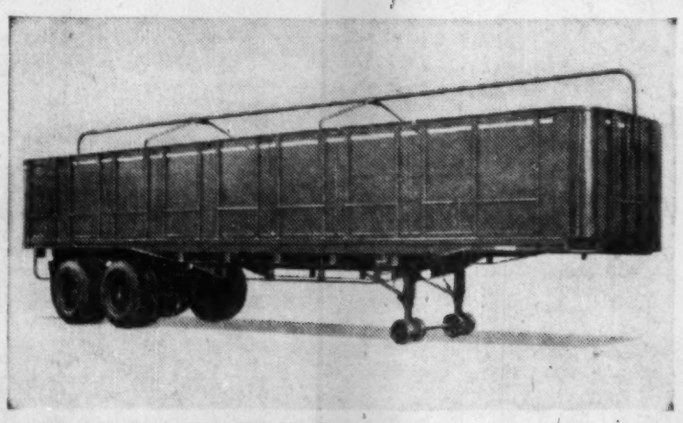

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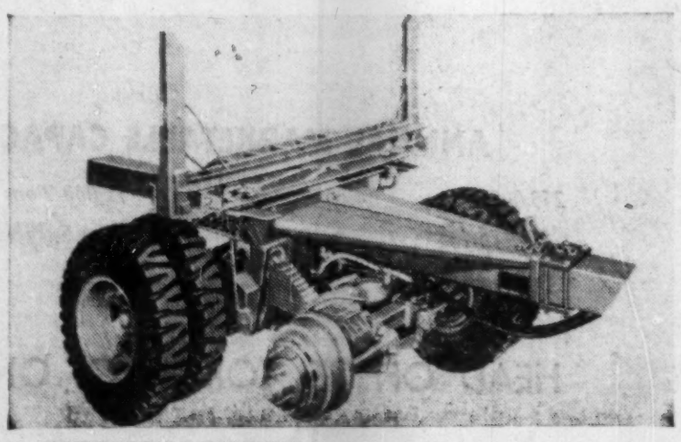

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Wood Pulp

Abitibi

Abitibi Power & Paper Co. manufactures, directly and through subsidiaries, sulphite pulp, newsprint, printing and fine papers, and paperboard.

Mills are at Iroquois Falls, Sault Ste. Marie, Fort William, Port Arthur, and Smooth Rock Falls, Ont., Pine Falls, Man., and Beaupré, Que. Sulphite mills are at Smooth Rock Falls and Sault Ste. Marie.

Production of bleached sulphite and other pulps in 1956 totalled 67,377 tons, an increase of 2.9% over 1955. President D. W. Ambridge said there appears to be more pulp production capacity in North America than is required to supply even the very large consumption expected throughout 1957.

Abitibi has this year disposed of its 10% interest in the stock of **Alaska Pine & Cellulose Ltd.** of Vancouver, B.C., to **Rayonier Inc.** Basis of the exchange was 12.5 Rayonier common shares for each share of Alaska Pine. The latter company operates pulp mills on the Pacific coast.

Alaska Pine

Alaska Pine & Cellulose Ltd., Vancouver, B.C., produces dissolving and bleached sulphite pulps, 10% of which is used in fine paper making, the remainder in manufacture of rayon and staple fibres.

Company is a wholly owned subsidiary of **Rayonier Inc.** of New York. The parent company early this year acquired all the stock held by the other two major shareholders — **Abitibi Power & Paper Co.** of Toronto (10,000 shares) and the Koerner interests of Vancouver, B.C. (9,354 shares).

New facilities for the production of dissolving pulp were completed recently at company's chemical cellulose mill at Port Alice on the northern tip of Vancouver Island. A 175-inch Black-Clawson pulp-drying machine has been installed, designed to produce 350 tons of dissolving pulp daily at speeds of from 150 to 360 ft. per minute.

Equity capitalization outstanding at latest report consisted of $1,650,000 5% cumulative preferred stock, $100 par, and 100,000 n.p.v. common shares.

Anglo-Canadian

Anglo-Canadian Pulp & Paper Mills Ltd. produces unbleached sulphite pulp at its Quebec City mill.

Annual capacity amounts to 60,000 tons of unbleached sulphite pulp in excess of company's newsprint requirements. During 1956 more unbleached sulphite was produced than in the previous year but an increasing proportion was needed for additional newsprint and paperboard output with the result that the year's total saleable production at 57,140 tons was 4,149 tons lower than in 1955.

Last year company spent over $1.6 million to modernize and improve the Quebec mill. The mill's electrical system was revamped and a refuse-burning plant completed.

For main coverage on this company see newsprint section of this issue.

Bathurst

Bathurst Power & Paper Co. produces unbleached sulphite pulp for sale at its mill in Bathurst, N.B. Annual capacity of the pulp dryer is 24,000 tons. Company also produces kraft pulp, semi-chemical pulp and groundwood pulp for its own use as well as some groundwood pulp for sale.

The semi-chemical pulp mill uses hardwoods as raw material for the manufacture of BCM, a specialty corrugating medium first introduced and manufactured in Canada in 1951 by Bathurst.

In 1956 production of market pulp at 15,008 tons declined 4,016 tons from 19,024 tons produced in 1955. Reason is a substantial increase in consumption by the company of unbleached sulphite pulp in the manufacture of industrial paperboards which reduced tonnage over this pulp available for sale.

Tonnage of groundwood pulp produced for sale in 1956 was slightly lower than in the previous year.

While the decrease in sales of unbleached sulphite pulp last year was lower due to the smaller quantity available for sale, the decline in groundwood pulp sales reflected the reduced demand.

In August last year, company announced program for capital improvements to properties, plant equipment estimated to cost $3.5 million. Major projects for the mills division included installation of a new black liquor recovery unit and brown stock washing equipment for the kraft pulp mill and new pulping equipment.

For main report on this company, see specialty paper section of this issue.

Bowater's

Bowater's Newfoundland Pulp & Paper Mills Ltd. produces a large amount of sulphite pulp at its Corner Brook, Nfld., newsprint mill. It owns a 150-in., sulphite pulp drying machine with an aggregate daily capacity of 175 tons or about 55,000 tons per year.

The Corner Brook mill is one of the largest single integrated pulp and paper mills in the world. The six paper machines have a current annual capacity in excess of 310,000 tons and company's sulphite pulp production, surplus to its own requirements for manufacture of newsprint, amounts to 50,000 tons per year.

Company's timberlands cover an area of over 11,000 sq. miles of which some 2,250 sq. miles are freeholds and the remainder held under license from the government of Newfoundland — generally for a term of 99 years from 1938.

Some 80% of company's newsprint output is sold to publishers in the U.S.—mainly under 15-year contracts dating from 1954—with the remainder being sold in Commonwealth and other overseas markets.

The surplus sulphite pulp is sold primarily in the U.K.

Company at present is carrying out an expansion program which, as a result of the speeding-up of existing newspaper machines, will raise newsprint capacity to 340,000 tons per year. The increased tonnage that will thus be available is already covered by contracts with customers.

The expansion program calls for speed-up of machines No. 4 and 7, one of them being scheduled to be rebuilt next spring to increase speed from 1,600 fpm to about 2,000 fpm. The other machine will be speeded up from the present level of 1,300 fpm to 1,600-1,650 fpm range.

In order to support this additional output, company has already placed orders for further line of grinders, a tenth digester and a new oil storage tank of 150,000 bbl. capacity.

Only holdover from company's previous development program is installation of a new 6,600 kva. steam turbine—delivery of which was somewhat delayed—but erection of which is now almost completed. The new turbine is expected to go into operation early this December.

The 1955-56 season's cut was 520,000 cords for the mill and 90,000 cords for export.

Cutting of 42-in. wood for export was started for the first time this year at Baie d'Espoir, objective being 20,000 cords.

Brown Corp.

Canadian properties of **Brown Corp.** were acquired by **Canadian International Paper Co.** on Dec. 1, 1954. Properties included the LaTuque, Que., pulp mill which at time of purchase had a capacity of 175,000 tons of premium kraft pulps (of which 165,000 tons were high grade bleached kraft pulps) and 2,453,973 acres of timberland.

Purchase price was $39,250,000 exclusive of certain adjustments paid from cash resources.

Since selling its Canadian assets, Brown Co.'s objective has been both to improve its operations at Berlin, N.H., mill and replace earning power lost through the sale by acquisition of assets in other locations.

In March of last year company acquired a 50% interest in the **Resichem Corp.** of Swanton, Ohio, a young, fast-growing producer of wet strength resins used in paper making, adhesives for the plywood industry, general purpose glues, water wash compounds and other products. Shortly after the acquisition, Resichem opened an additional plant at Gorham, N.H., to supply Brown Co.'s needs for resins and adhesives as well as other customers in the northeastern U. S.

In June, 1956, company acquired physical assets of the **Blacfibre Pipe Co.** of Corvallis, Oregon. This plant, now a division of Brown Co., makes Bermico pipe for the parent company's west coast customers. In August of last year an expansion was undertaken designed to double capacity of the plant.

Last year, Brown also acquired all of the capital stock of three closely integrated companies at North Stratford, N.H. (about 40 miles from Berlin) which constitutes one of the principal producers of high

(Continued on page 69)

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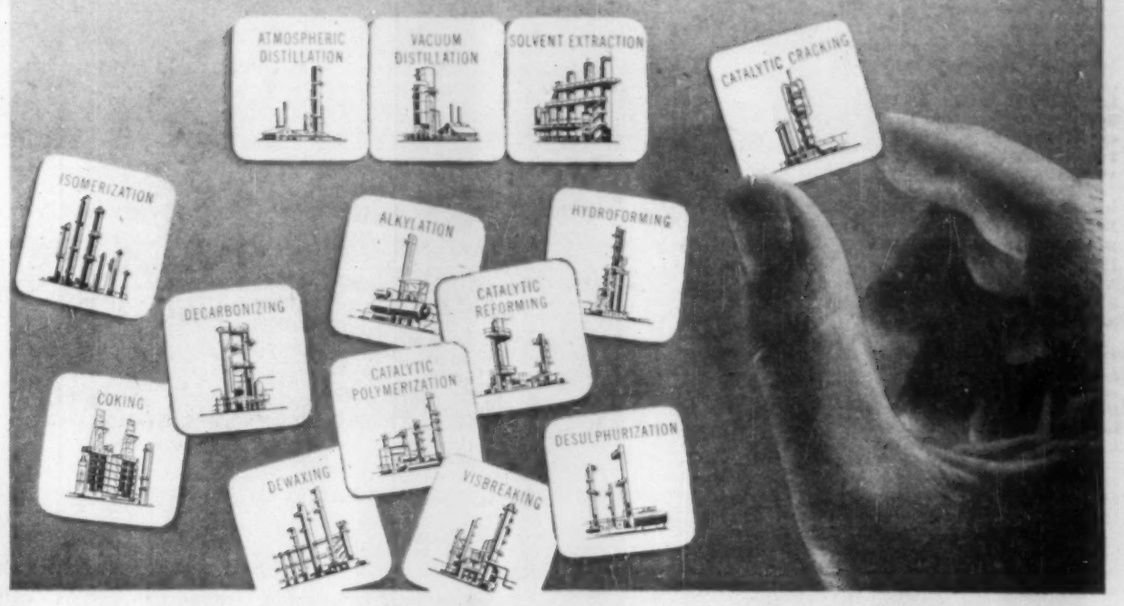

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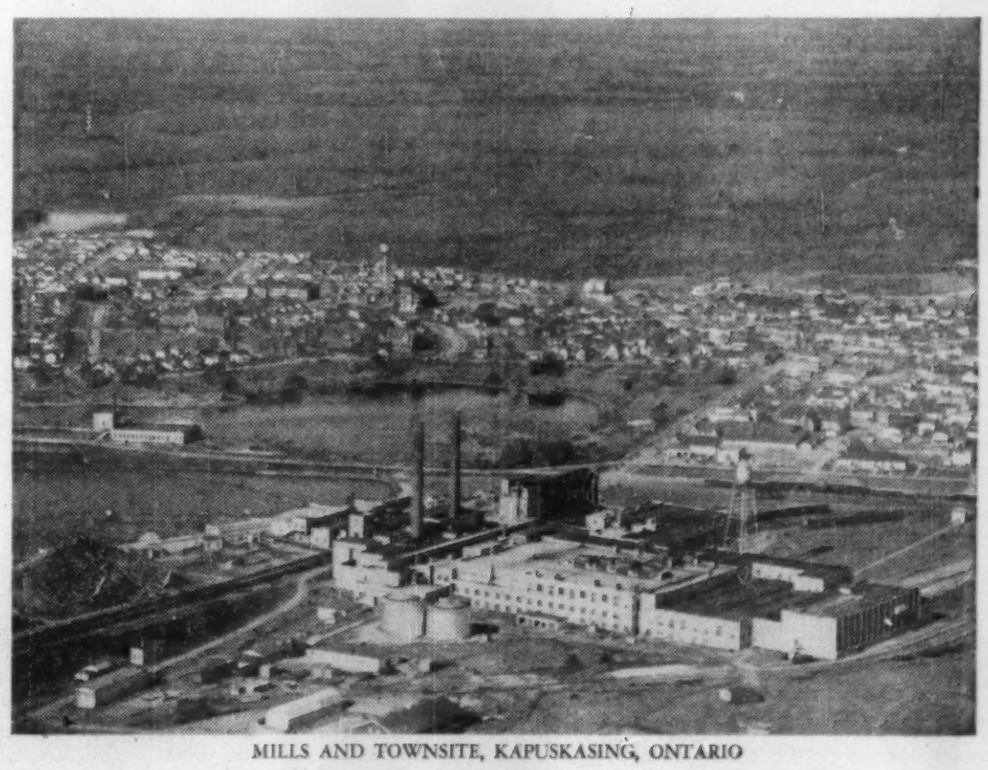

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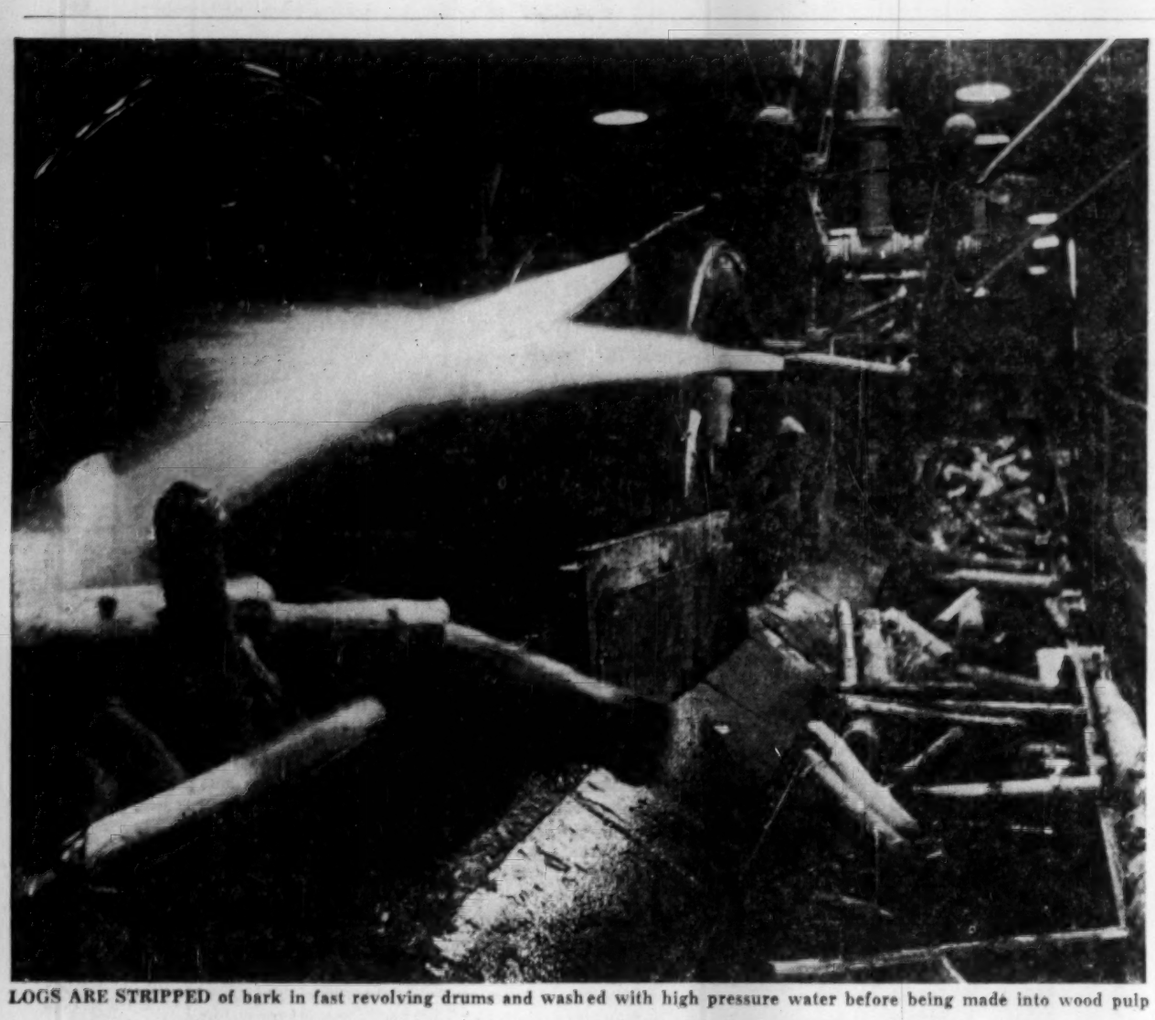

LOGS ARE STRIPPED of bark in fast revolving drums and washed with high pressure water before being made into wood pulp

Wood Pulp

(CONTINUED FROM P. 68)

quality hardwood veneer and plywood in the northeast U. S. The companies are **Granite State Veneer, Inc., Plywood Products Inc.,** and **Stratford Realty Corp.**

They are now operated as subsidiaries of Brown's, employ about 320 people and have an annual sales volume of approximately $4.5 million.

Extensive improvements and additions are also under way at Brown's Berlin mill.

For the year ended Nov. 30, 1956, consolidated net profit was $2,611,504 or $1.01 per common share (on an average of 2,591,976 shares outstanding), up 29% over $2,030,199 or 81c per common share (on an average number of 2,295,315 common shares outstanding) in 1955. The 1956 profits include six month's earning from the recently acquired veneer and plywood manufacturing subsidiaries located at North Stratford.

Consolidated net sales, $59.7 million, were up 11% over $53.8 million the year before. Excluding sales of the North Stratford subsidiaries, this represents an increase of 7% in net sales.

For the 28 weeks ended June 15, 1957, net profit was $1,053,154 or 41c per common share, down 4.8% from $1,107,135 or 43c per common share in the corresponding period of 1956. Results from its veneer and plywood subsidiaries at North Stratford are included in the 1957 figures but these subsidiaries were not owned by it in the first half of 1956.

Net sales for the 26 weeks ended June 15 at $34.4 million were up 11.2%. Of the increase in net sales, 62% came from sales made by the veneer and plywood subsidiaries.

Company has experienced the cost-price squeeze reported by many other companies in the industry. Productive capacity has been increased through plant improvements but the market for company's products was such that in most cases it was able to sell only about the same amount as last year.

There has been some slackening in sales and it is difficult to determine whether this goes beyond the seasonal effect which generally occurs at mid-year, company says. Vigorous cost reduction efforts are being continued in an attempt to offset increased labor and material cost.

As at Nov. 30, 1956, company's funded debt outstanding comprised $5,059,100 in 4½% debentures due June 15, 1975 ($5,180,600 a year earlier).

Capitalization comprises 3.5 million shares of common stock ($1 par) of which 2,592,451 were issued (excluding 52,414 shares held by company as treasury stock).

Cdn. Internat'l

Canadian International Paper Co. produces large amounts of bleached sulphite pulp for sale. The company is a wholly owned subsidiary of **International Paper Co.**, New York.

The company's Kipawa sulphite mill at Temiskaming, Que., has three pulp-drying machines which have a total daily capacity of about 440 tons of high-grade bleached sulphite pulp (135,000 tons annually on a 308-day basis). The Hawkesbury sulphite mill at Hawkesbury, Ont., is equipped with two pulp-drying machines with a daily capacity of 250 tons of high-grade bleached sulphite or 77,000 tons on a 308-day basis.

An extensive rebuilding program at Hawkesbury was completed at the end of 1952. The mills is now producing a special new grade of hardwood dissolving pulp that was developed at the adjacent laboratories of the company's wholly owned subsidiary, **Industrial Cellulose Research Ltd.**

At the Gatineau newsprint mill, about five miles below Ottawa on the Ottawa River, company has a capacity for producing about 220 tons daily of bleached sulphite pulp (67,800 tons on a 308-day basis).

Some bleached sulphite is used by the paper mills of the parent company, International Paper Co., in the Northern U. S. Outside sales are all made under long-term contracts with over 70% going to the U. S.

For main coverage on Canadian International Paper Co., see newsprint section of this issue.

Columbia Cellulose

Columbia Cellulose Co. is a subsidiary of **Canadian Chemical & Cellulose Co.**, a holding company formed in 1951 to consolidate all the Canadian operations controlled by **Celanese Corp. of America.**

Columbia Cellulose began manufacturing operations in 1951 at a $29 million plant on Watson Island, just south of Prince Rupert, B.C. Original plans were for an output of 200 tons per day of high alpha pulps.

Since then, through expenditures of additional $16 million, the mill's productive capacity has been expanded to present level of 300 tons per day. This increased output of high alpha pulps and also made possible simultaneous manufacture of other grades of pulps.

Company's production of dissolving pulps is mainly used for the manufacture of textile fibres and plastice. The mill supplies the requirements of its affiliated, **Canadian Chemical Co.** at Edmonton, as well as plant of Celanese Corp. of America and other manufacturing companies.

Capitalization as at Dec. 31, 1956 comprised: First mortgage bonds, 3½% series A due 1957-58— $5 million issued of which $1,250,000 were outstanding; 4½% series A due 1965 of which $10 million were issued and $9,920,000 outstanding; general mortgage bonds; 5% series A due 1968 of which $5 million were issued and $3,800,000 outstanding; 100,000 5½% cumulative redeemable preferred shares ($100 par) issued and outstanding; and 274,500 common shares ($100 par) issued and outstanding.

All of the common shares are owned by the Canadian Chemical & Cellulose Co.

Through a forest management license granted by the British Columbia Government, company holds a tract of 660,000 acres of timber land north of its mill location. The tract is believed of sufficient size to maintain anticipated pulp mill capacity in perpetuity. Company has received assurances that if it is shown the area covered by the license will not support a 300-ton-per-day plant, additional timber will be added from other available areas. In addition, timber is reported to be available for purchase from independent loggers.

In 1956, parent company — which includes Canadian Chemical Co. at Edmonton — had a net profit of $41,369 compared with a consolidated net loss of $1,542,612 in the previous year.

Depreciation decreased to $5.9 million from $6.2 million in the previous year, while interest and amortization decreased to just over $3.8 million from $3.9 million in the previous year.

For the six months ended June 30, 1957, Canadian Chemical & Cellulose consolidated net loss of $1,468,000 compared with a net profit of $311,000 in the first half of 1956. Consolidated net sales at almost $18.7 million were down 4% from $19.6 million in the first half of last year.

Company said the decline in operating profit is due to a number of factors, with pulp operations showing the biggest decline. This reflects the steadily increasing discount on foreign exchange as well as the carry-over into the first quarter of unsatisfactory operations at Prince Rupert, it is reported.

While pulp production rose and costs declined during the period, volume of chemical and cellulose acetate exports were reduced by import and exchange restrictions in certain markets, and by increased competition in others. Textile markets, it is noted, showed little improvement while those for lumber were seriously depressed.

Company said pulp manufacturing efficiency improved during the first half of the year, but not sufficiently to offset increased wage, material and transportation costs. Alterations and additions to manufacturing facilities now in progress give promise of significant improvements in the latter months of this year, company adds.

Cons. Paper

Consolidated Paper Corp., one of Canada's largest producers of newsprint, converts most of its pulp output into paper, but it has some kraft pulp for sale at the Wayagamack Division.

The company has experimented successfully with the manufacture of "high yield" sulphite pulp, which resulted in development of a process yielding about 30% more pulp from a given quantity of wood. The high yield sulphite plant at Belgo Division should be in operation before the end of this year, and when the Laurentide and Port Alfred Divisions are similarly equipped with this process, there will be a saving of approximately $2 million annually, company reports.

Pulpwood for future growth will be provided for through long-range planning — such as a saving of 50,000 cords of pulpwood annually which will result through adoption of the "high yield" sulphite pulp process, by possible utilization of hardwood pulp and by increased yield from the present forest areas.

Future growth possibilities are being continuously investigated and developed by company's research and operating staffs.

For main report on this company see newsprint section of this issue.

Donnacona

Donnacona Paper Co. produces a substantial amount of sulphite pulp at its Donnacona, Que., mill as well as having a large newsprint and insulating board operation.

About 65% of its sulphite pulp available for sale is sold in the U. S.

Virtual control of the company was acquired by **Howard Smith Paper Mills Ltd.** in 1948 through purchase of shares. Company has acquired further shares since then and now owns some 97% of the 379,532 outstanding common shares.

During 1956 total of 33 capital expenditure projects were underway or completed.

Included was a 550-volt substation erected to serve the electrical requirements of the pulp mill.

For main report on the company see newsprint section of this report.

Fraser Cos.

Fraser Cos. turns out a large amount of pulp for sale, chiefly, through its wholly owned subsidiary, **Restigouche Co.** Another subsidiary, **Fraser Paper Ltd.**, manufactures paper in Madawaska, Maine, chiefly for the U. S. market.

Restigouche has a sulphite pulp mill at Atholville, N.B. producing paper and dissolving type pulps. At the present time, the daily capacity of the mill is approximately 270 tons of paper grade pulp or 200 tons of dissolving grade pulp for ultimate manufacture into rayon, Cellophane, and plastic.

At Newcastle, N.B., Fraser Cos. manufacturers unbleached kraft pulp. The capacity of the mill is about 180 tons a day. The major portion is shipped up to Edmundston for bleaching and subsequent blending with other pulp for use in the paper mill at Madawaska, Maine.

At Edmundston the company operates sulphite and groundwood pulp mills, sulphite and kraft bleaching plants, and a paperboard mill. The pulp mills prepare the raw material for the Madawaska paper mill. The daily capacity of paperboard is 85 tons.

The company has developed a hydro-electric site of 2,000 hp. installed capacity at Edmundston. The greater part of the power for the Edmundston operation is obtained through **Gatineau Power Co.'s** power plant at Grand Falls, N.B. over the company's own transmission lines. Mills of the subsidiaries Fraser Paper Ltd., and Restigouche Co., are supplied with power from their own steam turbine generators.

Sales of the company's products last year included 284,815 tons of pulp, paper and paperboard (273,169 tons in 1955).

Demand for all products manufactured by the company declined during the second quarter of the year. Reduced volume of sales, higher costs for practically all manufacturing items, increased transportation charges, and the lower value of the U. S. dollar to the Canadian dollar adversely affected net earnings for the first half of the year, the company reports.

The profit for the first six months of 1957, after all charges, was $2,542,394 as compared with $3,388,077 for the same period in 1955, a drop of 24.9%.

Gaspesia

Gaspesia Sulphite Co. is a wholly owned subsidiary of **Anglo-Newfoundland Development Co.**

The mill, at Chandler, Que., has an annual capacity of 90,000 tons of bleached sulphite pulp. Production in 1956 was 19,361 tons of unbleached sulphite pulp and 62,130 tons of bleached sulphite.

Estimated production for 1957, company states, is 12,370 air dry tons of unbleached, 66,425 air dry tons of bleached.

Consolidated net profit of Anglo-Newfoundland in 1956 was $5,425,707 compared with $4,632,139 the year before. Gaspesia's share in the net profit was $490,660, compared to $413,574 the year before.

Great Lakes

Great Lakes Paper Co., Fort William, Ont., manufactures unbleached sulphite pulp as well as newsprint at its plant on the Kaministiquia River.

Shipments of pulp in the first six months of 1957 totaled 21,883 tons, down 9.1% from 24,072 tons in the first half of 1956. For the full year 1956, market pulp output was 47,806 tons, up from 44,056 tons in 1955. Value of pulp sales rose to $5,204,000 in 1956, from $4,666,000 in 1955.

Company is increasing its newsprint production capacity with the addition of one new machine this year and a second machine which is to be completed by next July. As a result of the increased production of newsprint, amount of surplus unbleached sulphite pulp available for sale will be cut to about 20,000 tons from the present annual total of 60,000, when newsprint output attains capacity. Saleable capacity of groundwood pulp will then be about 4,000 tons a year.

Timberlands now held by Great Lakes Paper are expected to provide an annual yield on a perpetual basis sufficient to satisfy annual pulpwood requirements of 453,000 cords per annum.

(For the main report on Great Lakes, see the newsprint section of this issue).

Howard Smith

Howard Smith Paper Mills Ltd. is the largest Canadian producer of fine and specialty papers, and also has large manufacturing facilities for various types of pulp.

Combined annual market pulp capacity of all plants owned or controlled by the company includes 62,000 tons bleached and unbleached sulphite pulp; 60,000 tons of bleached soda pulp; 8,000 tons of groundwood pulp and 19,000 tons bleached and unbleached kraft pulp.

Pulp production in 1956 totaled 458,250 tons, up from 412,982 tons in 1956.

(Continued on page 70)

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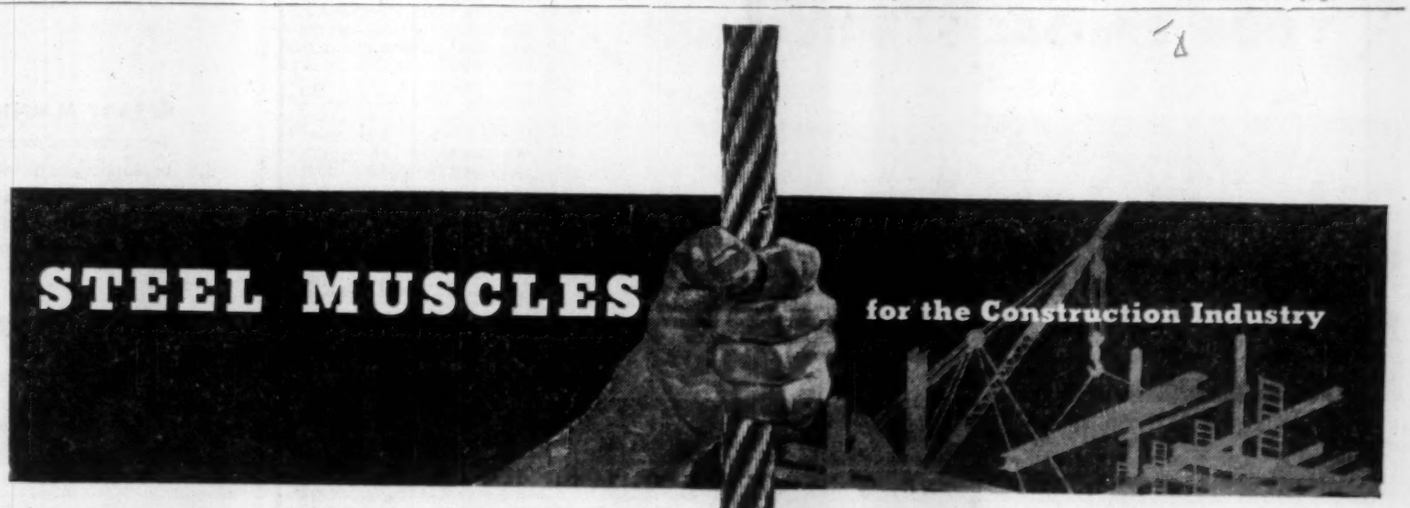

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Sales and Service Offices Coast to Coast

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POWERFUL, STURDY TUGS nudge and jostle logs to pulp mills.

Wood Pulp

(CONTINUED FROM P. 69)

Consolidated net profit for the year was $7,089,130 against $6,146,659 in 1955. For details on financial position and operations of Howard Smith see Fine Papers Section of this issue.

Howe Sound

Howe Sound Pulp Division of **Canadian Forest Products Ltd.** operates a kraft pulp mill at Port Mellon, B.C. This plant was purchased in 1951 by a group consisting of Canadian Forest Products Ltd. and associates, from **Sorg Pulp Co.**, a subsidary of **Sorg Paper Co.** of Middletown, Ohio.

When Canadian Forest Products assumed full financial control of the mill in 1953 and made it one of its divisions, a semi-bleach plant was installed. This enabled Howe Sound to produce semi-bleached and unbleached kraft.

Canadian Forest Products also operates a large plywood and hardwood division and a lumber and shingle division, both of which derive their requirements of logs from the company's extensive forest and logging operations as well as, to a lesser extent, independent loggers.

Irving

Irving Pulp & Paper Ltd., a New Brunswick company, manufactures bleached sulphite pulp at Lancaster, N.B. at the mouth of the St. John River. It was formerly **Saint John Sulphite Ltd.**

Present expansion at the company's fully bleached sulphite mill is understood nearing completion. Last reported production was at the rate of 210 to 220 tons of fully bleached sulphite per day. Mill capacity was being increased to 70,000 tons per annum under the present program from 55,000 tons.

This year's rate of fully bleached pulp production was 5,900 tons higher than the year before.

Under the expansion program, company reports it has added additional bleach plant capacity, a new stock blending chest, a new digester and further improvements.

Company owns 120,060 acres in New Brunswick and in the State of Maine, estimated contains 656,509 cords of spruce and balsam, plus stands of pine, cedar and hardwood, at last report.

Irving also owns 544 preference and 34,585 common shares of the 1,725 preferred and 118,800 common issued of **Allagash Co.** This company owns 85,144 acres of timberland in Maine.

Company does not publish financial statements.

KVP Co.

KVP Co., a subsidiary of **Kalamazoo Vegetable Parchment Co.**, Kalamazoo, Mich., produces bleached, semi-bleached, and unbleached kraft and groundwood pulp in its mill at Espanola, Ont. Company also manufactures wrappings, bag stock, waxings, coating, hanging, specialties, and a small amount of newsprint.

Holdings are operated under a forest management contract of 21 years, with option to renew for additional periods of 21 years each. Stipulations in the contract with the Crown include the cutting of minimum and maximum quantities of pulpwood, building of roads necessary to reach mature timber, and preservation of forest resources.

The Espanola property was bought from **Abitibi Power & Paper Co.** in 1943 at a cost of $1 million. In 1952, a parchment processing plant was added.

Consolidated sales of the parent company in fiscal year ended Sept. 30, 1956, were $55.6 million, an increase of 14.2% over sales of $48.7 million in the 1955-56 fiscal year. Net earnings were $3.8 million or $4.47 per common share, compared with $2.3 million or $2.81 in previous fiscal year.

The parent company's consolidated net profit for the nine months ended June 30 was $2.4 million, down 15.9% from $2.9 million in the comparable 1955-1956 period. Net sales were almost unchanged at just over $42 million.

Net profit for the three months ended June 30 was $795,122, down 17% from $957,548 in April-June, 1956. Net sales declined to $13.7 million in the quarter from $14 million a year earlier.

Kimberly-Clark

Kimberly-Clark Pulp & Paper Co., formerly **LongLac Pulp & Paper Co.**, is a wholly owned subsidiary of **Kimberly-Clark Corp.** of Neenah, Wis. It operates a kraft pulp mill at Terrace Bay, Ont., on the Lake Superior north shore, with a daily capacity of 330 tons of bleached kraft pulp. Output is shipped to the parent company's mills at Kapuskasing, Ont., and in the U.S.

Mill is at the southern end of a water system which carries logs from the timber limits at Long Lac 80 miles to the north, where company's woodlands are located.

Consolidated sales of Kimberly-Clark Corp. and subsidiaries amounted to $310.7 million in fiscal year ended April 30, 1957, an increase of 10.1% over the $282.2 million sales of the same companies during the 1955-56 fiscal year. Sales in the February-April quarter of this year were $75.9 million, down 1.1% from $76.8 million in the same three months of last year.

Net earnings were $24.8 million or 7.9% of sales, compared with $24.1 million in the previous fiscal year. Earnings were equivalent to $2.92 per common share, up from $2.87 a year earlier. Net earnings in the February-April quarter this year were $5.8 million or 69c, down from $6.6 million or 79c in the same quarter of last year.

(Financial statements of the Canadian company are not published.)

MacM. & Bloedel

MacMillan & Bloedel Ltd., Vancouver, B.C., controls a fully integrated lumber operation from standing timber to sale of finished product. It is one of the world's largest manufacturers and exporters of timber products.

Company is the largest Canadian producer of plywood, accounting for one-third of Canada's total output. Its two kraft pulp mills have become increasingly important to company's operations.

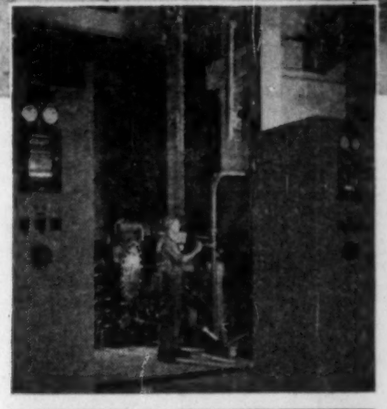
Product line is being further diversified by the new kraft paper and board machine at Port Alberni, which was installed earlier this year and has now been run in, and by the first newsprint machine at Port Alberni, which was to commence production this month.

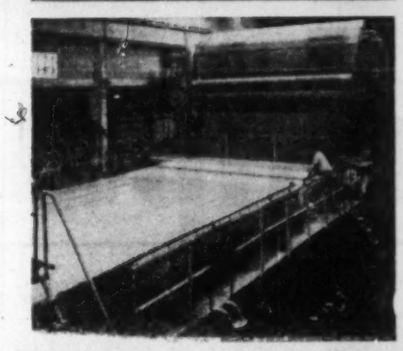
This machine, designated No. 3, runs at the rate of 2,500 feet per minute. No. 4, designed to run at 3,000 feet per minute, is to start up early next year.

Western district saw mills

(Continued on page 71)

Something New has been added...





New Paper Machine at Kenora

Climaxing two years of construction, O-M's new No. 10 newsprint machine began commercial production this year. Costing some $20 million, the high-speed machine nearly doubles the mill's production capacity. In addition to 210,000 square feet of new plant area, auxiliary equipment includes four groundwood pulp lines, one chemical pulp digester, a boiler, new pulp screening facilities, a drum barker and many other additions.

Canada's Most Modern Grinder Room

Utilizing latest control mechanisms, O-M's new grinder room at Kenora produces high grade mechanical pulp automatically. Built to supply the mill's new newsprint machine, this facility has eight grinders driven by four 5,500 horsepower electric motors.

New Production at Fort Frances

Now one of the fastest newsprint machines in Canada, No. 7 was improved and speeded up last year resulting in important production increases. The company is also expanding and improving its facilities for greater production of specialty papers at Fort Frances.

O-M's constant progress and growth benefits shareholders, employees, customers and the communities in which the company operates.

THE ONTARIO-MINNESOTA PULP and PAPER COMPANY, LIMITED
Mills at Fort Frances and Kenora, Ontar

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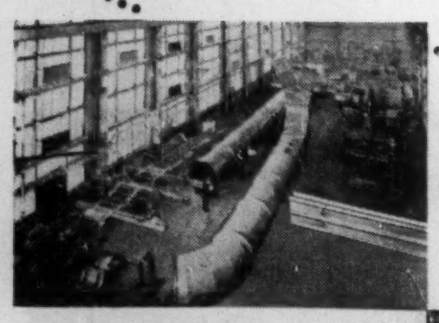

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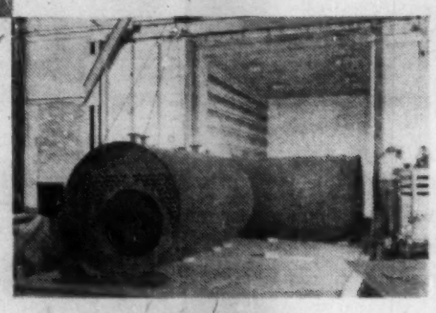
Above is shown 6 ft. diameter gas tight duct for a well-known mining company. Length is 156 ft. All seams were submerged arc-welded with manual back-up pass.

At right: New stress-relieving electric furnace, 15 ft. by 28 ft. by 15 ft. high will accommodate very large pieces. The boilers shown were stress-relieved at 1100°F.



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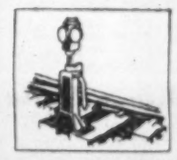
Here's why the switch  *is to*

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for Industry and Switching...

● SMOOTH POWER

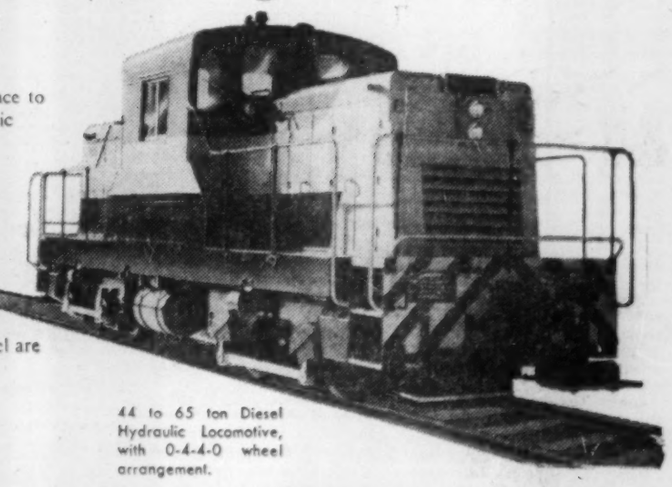
Using the same principle of power transference to the driving wheels as an automobile's automatic transmission, the Diesel Hydraulic delivers smooth power without dangerous jerking. With no rigid connection between engine and wheels, possible damage to transmission or engine due to coupling is eliminated.

● OPERATING ECONOMY

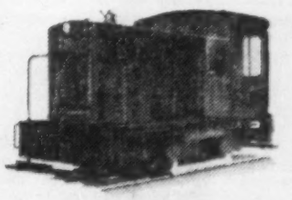
Specialized maintenance facilities and personnel are not required to service CLC Diesel Hydraulic Locomotives.

● EASY MAINTENANCE

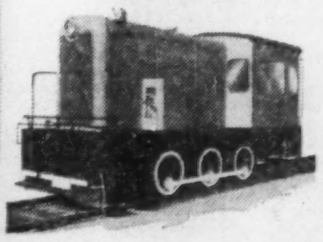
The absence of electrical rotating equipment makes it unnecessary to maintain stocks of spare renewal parts such as brushes, relay contacts, etc. CLC Diesel Hydraulic Locomotives are built in the following sizes: 12-15 tons; 20-25 tons; 30-35 tons; 40 tons; 44 tons; 50-65 tons.



44 to 65 ton Diesel Hydraulic Locomotive, with 0-4-4-0 wheel arrangement.



15 ton 0-4-0 Diesel Hydraulic switching locomotive—typical of the class of switching locomotive used throughout the world.



40 ton 0-6-0, 300 h.p. Diesel Hydraulic Switching Locomotive.

Spare parts for Davenport Besler and Porter Locomotives
Since CLC are the sole builders of these world-famous locomotives all inquiries for spare parts should be directed to the Canadian Locomotive Company Limited.

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CLC ALSO BUILD DIESEL MECHANICAL, STEAM AND STEAM FIRELESS, DIESEL ELECTRIC LOCOMOTIVES.

Wood Pulp

(CONTINUED FROM P. 70)

at Port Alberni, company's largest operating division, produces between 80 million and 120 million ft. board measure per year. Capacity of the Alberni Plywood Divisio.. is 80 million sq. ft. of three-eighth inch three-ply plywood per year, while the Vancouver Plywood Division's capacity is 100 million sq. ft. per annum.

Kraft pulp is produced by the Harmac pulp division near Nanaimo, and by the Alberni pulp and paper division.

A subsidiary, **Canadian Transport Co.**, conducts a general shipping business and handles company's exports. Various sales branches throughout the world conduct company's marketing, except in the U. S. where a subsidiary in Seattle handles sales in that country.

Net sales in the nine months ended June 30, 1957, were $139,780,462, down 2.2% from $142,724,550 in the comparable 1955-56 period. Net income dropped to $8,261,268 or $1.56 per share in the latest period, from $14,580,209 or $2.75 per share a year earlier.

Net sales in the April-June quarter of 1957 were up about $45,000 at just over $48.2 million. Net income, however, dropped 45% to $3,081,389 or 58c a share, from $5,572,439 or $1.05 a share in the comparable three months of 1956. Reduction was due to lower prices accompanied by increased costs, said President H. S. Berryman.

Funded debt outstanding at latest fiscal year-end, Sept. 30, 1956, consisted of $3.1 million 2¾%-3% serial first mortgage bonds due 1958-59, and $2,244,500 4% first mortgage bonds, due 1965.

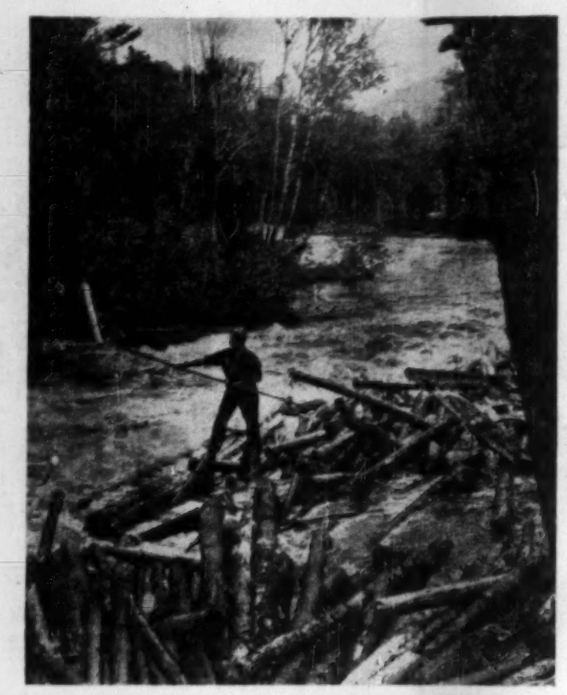
Equity capitalization outstanding at July 31, 1957, consisted of 33,107 class A noncallable convertible cumulative npv shares, and 5,252,431 class B npv shares.

Marathon

Marathon Paper Mills of Canada is a subsidiary of **Marathon Corp.**, Menasha, Wis. It operates a high-grade bleached kraft pulp mill at Marathon, Ont., with production capacity of 375 tons daily.

Marathon has cutting rights on three million acres of pulpwood forests in Canada. Pulp is converted to paper at mills in Ashland, Green Bay, Menasha and Rothschild, Wis., Menominee, Mich., and Oswego, N.Y.

Company owns **Marathon Packages Ltd.** of Toronto, which manufactures folding and setup paper board boxes.



PRECARIOUSLY BALANCED on logs in rushing white water, a lumberjack skillfully untangles a jam.

Net sales of the parent company in the six months ended April 30 totaled $74.3 million, compared with $70.4 million in first half of previous fiscal year. Separate figures for the Canadian operation are not published.

Net earnings for the six-month period were $3 million or 83c per common share, compared with $3.7 million or $1.03 a year earlier.

During the first half of the fiscal year, an adjustment of $530,645 was made in pulpwood inventories, representing the excess of pulpwood physically counted after the related mill book inventories were exhausted at the Canadian subsidiaries.

Output of the Canadian company in 1956 reached 131,000 tons. Objective for 1957 is 140,000 tons, which is being made possible by new installations now largely completed.

Export of spruce pulpwood to the U.S. pulp mills was discontinued.

Minas Basin

Minas Basin Pulp & Power Co. produces groundwood, pulp, paperboard and has extensive lumbering operations.

The Hantsport, N.S., mill has a capacity of 10 tons of bleached and 20 tons of unbleached groundwood pulp per day. Most of the pulp is sold to **Scott Paper Co.** in the U. S.

Capacity of the paperboard mill is over 50 tons.

Company owns over 310,000 acres of timber and operates two power plants on the St. Croix River. Capacity of the plants total 7,100 hp. Additional power requirements are purchased from the **Nova Scotia Light & Power Co.**

Company's wholly owned subsidiaries include **Minas Shipping Co., Mapleleaf Lumber Co., Minas Stevedoring Co., Annapolis Basin Pulp & Power Co.** Company also controls **Canadian Keyes Fibre Ltd.** Associated companies include: **Standard Woodworkers Ltd., Parrsboro Lumber Co., Dartmouth Lumber Co.** and **Annapolis Valley Canners Ltd.**

In 1956, lumber shipments at 30,190,786 ft. were up 2,133,896 ft. Paperboard shipments also showed an increase at 9,912 tons, up 1,959 tons from the previous year. Groundwood pulp shipments were down by 3,372 air dry tons at 29,529 tons from 1955.

Outstanding capital stock consists of 17,000 npv. common shares. Funded debt when last reported (Dec. 31, 1954), comprised $1,963,000 4-4½%. First mortgage sinking fund bonds series 1966, '71, '78, '79, '81 and '82.

North Western

North Western Pulp & Power Co., owned jointly by **North Canadian Oils Ltd.** and **St. Regis Paper Co.**, New York, holds cutting rights on two million acres of Alberta timberland. Company has also been granted an additional two million acres of timberlands as a reserve for future expansion.

North Western's new $42 million pulp mill at Hinton, Alta., on the eastern slope of the Rocky Mountains, went into production this spring.

St. Regis Paper operates and manages the mill, and sells its production. The mill has a perpetual pulpwood supply through a long-term timber grant from the Alberta provincial government to North Western.

Annual production capacity is 150,000 tons of bleached kraft pulp. St. Regis buys part of the output for use in its own mills, and sells the balance in the open market.

The two digesting units at the Hinton mill, with a volume of 10,800 cu. ft. each, are the largest in use anywhere in the world. Rated production capacity is 250 tons per 24 hours. The bleach plant at the mill has a rated bleached stock output of approximately 430 tons per day.

In the initial construction of the new pulp mill, adequate facilities were provided for the eventual doubling of the mill's present capacity.

The eventual expansion of the plant would be designed to take advantage of the full extent of the regrowth of the trees in forested area. Entire output of the mill has now been sold into contracts of from one to five years.

Ontario Paper

Ontario Paper Co., Thorold, Ont., and its wholly owned subsidiary, **Quebec North Shore Paper Co.**, Baie Comeau, Que., are owned by the **Chicago Tribune** and the **New York News.**

Combined annual sulphite pulp capacity of the two plants is 60,000 tons, which is sold on the open market. Ontario Paper also contracts with **Beaver Co.** to take the output of its newsprint machine, supplying necessary raw materials such as pulpwood, sulphite, steam, etc.

The Thorold mill obtains its wood supplies from the company's timber limits at Shelter Bay and Franquelin, Que., Heron Bay (Lake Superior), and Manitoulin Island.

Since there is no direct public interest in the company, financial and operating statements are not published.

Quebec P. & P.

Quebec Pulp and Paper Co. discontinued pulp production in 1930 and was placed in bankruptcy in 1942 following a petition from the Quebec Streams Commission on a claim for a $1.8 million for arrears of water dues on a Kenogami reservoir. All the company's former pulp mills and timberlands were sold to the Quebec government in August, 1949, for $1.5 million.

In November of the same year it was authorized that preferred share holders would receive $23 per share on delivery of certificates to the trustees by March 15, 1950. No payments have been made on shares delivered after that date, it is reported.

The bankruptcy estate of the corporation is still to be wound up with various matters to be settled between the trustees and the provincial government for final closing of the estate.

Restigouche

Restigouche Co. is a wholly owned subsidiary of **Fraser Companies Ltd.**, and manufacturers bleached sulphite pulp for use in paper making and dissolving pulp for manufacture of rayon viscose yarns, Cellophane film and other products.

The company's mill is at Atholville, N.B. and has a daily capacity of approximately 270 tons of paper making grade or 200 tons of dissolving grain.

Additional dryers are being installed this year on the pulp drying machines in the mill. Other improvements to the machines are also being made, company reports. In 1956, the new steam plant and new turbine generator came into operation.

As at Dec. 31, 1956 the parent company and its subsidiary Restigouche owned 1,559 sq. miles of freehold timberlands and 3,972 sq. miles of leasehold timberlands in New Brunswick and the Eastern parts of the Province of Quebec.

Consolidated net profit of the parent company and its subsidiaries in 1956 was $6,705,642 compared with $5,710,785 the previous year. Consolidated net profit for the first six months of this year was $2,542,394 or $1.14 per common share com-

(Continued on page 72)

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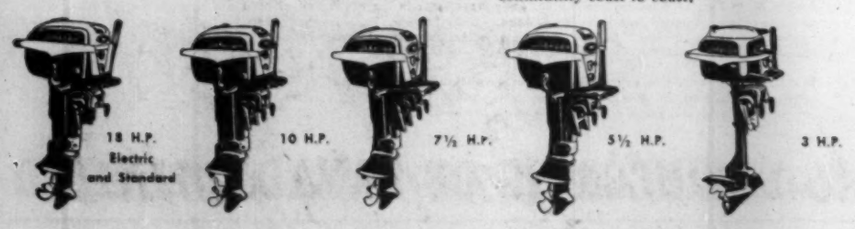
For full information on the versatility of these new outboards, write today or see your Johnson dealer. You'll find him listed under "Outboard Motors" in your 'phone book.

Johnson Sea-horse outboard motors are made in Canada with sales and service facilities in every community coast to coast.

The new Johnson 35 H.P. — full gearshift; plug-in fuel tank; takes remote controls. Three models: Golden Javelin, Electric Starting and Standard.



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PETERBOROUGH CANADA

Also manufacturers of Lawn-Boy and Lawn-Cruiser power mowers, Snow-Boy and Snow-Cruiser snow removers and Iron-Horse gasoline engines. Subsidiary: "I.H.L. Pioneer" Chain Saws, Vancouver, B.C.

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NEWSPRINT MILL IN
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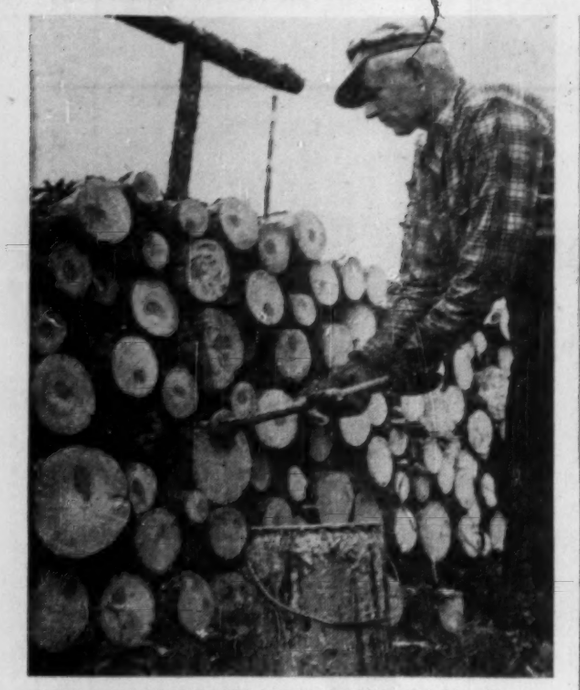
IN PRODUCTION SINCE 1909
A.N.D. NOW HAS AN AVERAGE
TURNOUT OF 800 TONS OF
NEWSPRINT DAILY, SHIPPED TO
THE MARKETS OF THE WORLD

ANGLO-NEWFOUNDLAND DEVELOPMENT CO., LTD.
GRAND FALLS NEWFOUNDLAND CANADA



EACH PULP COMPANY has its own special identification mark which is jabbed on logs before the drive down river.

Wood Pulp

(CONTINUED FROM P. 71)

pared with $3,388,077 or $1.52 per common share in the first half of 1956.

St. George

St. George Pulp and Paper Co. operates a pulp mill at St. George, N.B. It is one of the few Canadian mills which produces bleached groundwood pulp for sale, and is one of the oldest groundwood mills in Canada.

Total capacity is about 24,000 tons annually. There has been no change in capacity for a number of years and none is currently contemplated, it is understood.

Operations in 1957 have been fairly quiet. Mill is operating at about two thirds capacity on two shifts, daily, six days a week, compared with full operations last year in which mill operated three shifts daily, six days a week.

There are six grinders and eight wet machines in the mill which is situated at the mouth of Magagaudavic River.

Bleached pulp business understood to be running level with last year, but unbleached pulp is down. Sales are about 75% in the U.S. and the remainder in Canada.

Financial statements are not issued for publication.

St. Lawrence

St. Lawrence Corp. produces unbleached sulphite, kraft, semi-chemical and groundwood pulps as well as engaging in the manufacture of shipping case materials, kraft fibre and specialty papers, boxboard and newsprint.

Company owns and operates five mills, of which three are in Quebec (at Trois Rivieres, Dolbeau and East Angus) and two in Ontario (at Red Rock and Nipigon). By the end of this year these mills will have combined annual saleable capacity of about 696,000 tons of pulp and paper products comprising 43,000 tons of market pulp, 234,000 tons of kraft products and 419,000 tons of newsprint.

Company's surplus pulps are sold in Canada, the U.S. and overseas while practically all of its kraft paper products are sold in Canada. Principal market for company's newsprint output is the U.S. although part of the production is sold both in the overseas and domestic markets.

In April of this year, company announced a program to expand the kraft pulp capacity at the Red Rock mill which will ultimately increase annual output of the kraft board machine from 150,000 tons to more than 200,000 tons. Included in this program is the installation of a six-stage pulp bleaching plant which will provide a greater diversification of product.

Ability to produce bleached kraft pulp will enable the company to discontinue the present practice of purchasing sulphite pulp for newsprint production. Presently planned changes and improvements at Red Rock will cost approximately $18 million and completion of the program is scheduled in two and one-half to three years.

For financial and operating details, see newsprint section of this issue.

Thurso P. & P.

Thurso Pulp & Paper Co. is building a 200-ton kraft and pulp mill at Thurso, Que., about 95 miles north-west of Montreal near the Ottawa River.

The mill will cost about $17 million and is 70% owned by **Singer Manufacturing Co.**, a sewing machine manufacturer, and 30% by **Perkins Goodwin Co.**, New York, pulp and paper distributors since 1846.

Actual construction, which has been under way for the past two years, is reported to be on schedule with the result that production is expected to start on or about Jan. 1, 1958.

The project when completed will comprise a power house, bleach plant, pulp dryer, storage room and in addition will contain office and laboratory facilities.

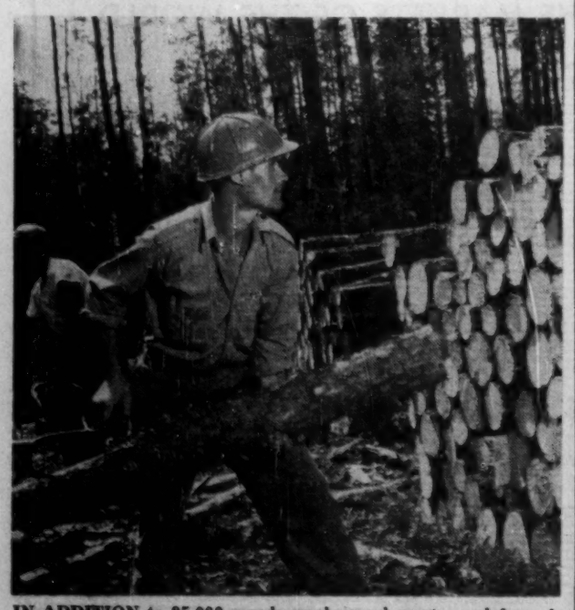
Wood for the plant will come from 490,000 acres of woodlands in the Thurso area on which Singer has cutting rights, and quantity of wood available is considered sufficient to sustain the mill in perpetuity. The mill will also use sawmill waste and salvage from the present Singer operation. Some freehold timber may also be purchased, it is reported.

Pulpwood will be transported to the mill by **Thurso & Nation Valley Railway**, a wholly owned subsidiary of Singer Manufacturing.

Production will require use of about 60% bleached hardwood and 40% bleached softwood, and the mill itself will employ approximately 250 persons.

Perkins Goodwin, an international pulp and paper marketing and managing organization, will handle both domestic and export sales.

To finance the Thurso operation, Thurso Pulp & Paper has arranged to borrow $12 million in 3½% 20-year notes guaranteed by Singer Manufacturing Co. Balance of the necessary funds are being provided both by Singer and Perkins-Goodwin.

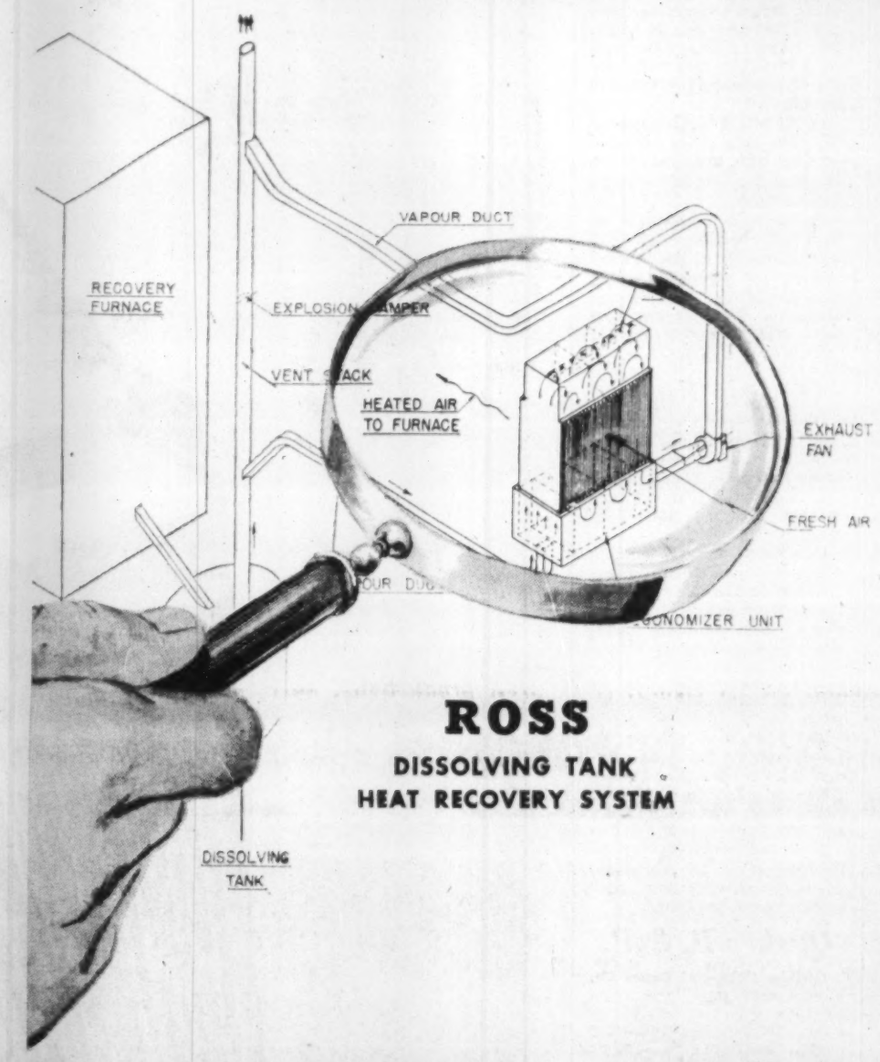


IN ADDITION to 95,000 woods workers who cut wood for sale to the mills, nearly 270,000 seasonal workers cut and move the annual pulpwood harvest.

ROSS Air Systems

Engineered Atmospheres for Better Processing

HOW ROSS OF CANADA SERVES THE PULP AND PAPER INDUSTRY

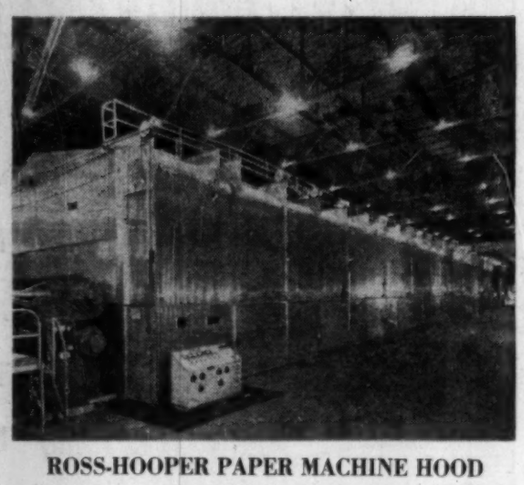


ROSS
DISSOLVING TANK
HEAT RECOVERY SYSTEM

Ross Service is many sided. Believing in that old adage — 'the whole is the summation of all its parts' —Ross Engineers are constantly studying ways and means of improving what might be classed as secondary operations in the production of pulp and paper while at the same time never neglecting the primary operations.

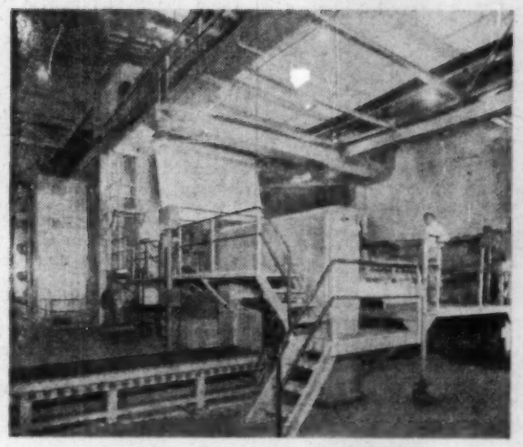
One such development — and it is arousing much interest — is the Ross Heat Recovery System for Dissolving Tank operations. This is a unit designed to recover the heat generated in the soda dissolving tank. It also recovers most of the soda entrained in the vapor which would otherwise pass up the stack. The system unit has been thoroughly tested in actual plant operation. Heat and soda recoveries are substantial and very much worth while.

Ross Engineering of Canada either directly or in collaboration with its several affiliates is also serving the pulp and paper industry in every activity that pertains to the drying and converting of pulp, paper and paper products; exhausting of fumes and vapors, ventilating, cooling and dehumidifying of machine rooms, and similar projects. In every case Ross Developments have contributed much to the improvements made in performing these operations.



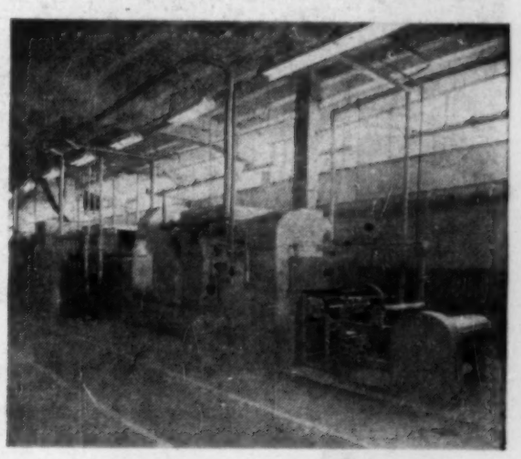
ROSS-HOOPER PAPER MACHINE HOOD

A major development of not too many years back, this totally enclosed type of hood has proved to be a substantial economy factor in the cost of removing paper machine vapors and of drying sheets. Although readily accessible for inspection and maintenance, the Ross-Hooper Hood effectively seals off the machine from in-sweeping room air. Drying air and drying temperatures are more effectively introduced and controlled. Heating costs are lower since much lower volumes of air are required.



ROSS PULP DRYER

One of the outstanding features of this unit for drying pulp by convection is the unique adaptation of conveyor tape for moving the pulp as a web continuously back and forth for several passes through the dryer. Not only does this type of dryer improve the quality of pulp by practically eliminating tension in the sheet during the drying process but it also provides higher thermal efficiency and greater accessibility for inspection and maintenance.



ROSS-WALDRON CONVERSION UNIT

This installation involves a Waldron coating unit followed by a Ross Dryer. The view shown is typical of a complete line used for the conversion of paper as well as cloth, plastics and other webs of materials.

ROSS and WALDRON in the Converting Field

One of the companies affiliated with ROSS of Canada is the John Waldron Corporation, New Brunswick, N.J. This company has specialized in 'web processing' for well over one hundred years. Waldron Engineers work with our staff where problems of coating, laminating, impregnating, waxing, embossing or other paper conversion steps are involved. Waldron furnishes the converting equipment and auxiliaries, Ross supplies the dryers, ovens and other units involving 'engineered atmospheres'.

Ross of Canada, founded in 1923, has long served other industries in Canada's growing economy where Engineered Atmospheres are required for better processing or for better working conditions. Such industries as metal finishing, textiles, rubber, chemicals, food, plastics and abrasives are some examples of those served.

Among other Ross of Canada contributions to improvements in the production of pulp and paper are: Yankee Paper Machine Hood, Cowie Scraper, Ross-Grewin System, Vapor Absorption System, Grinder Vat and other Exhaust Systems, Ross-Briner Economizer and Ross Midwest Fulton Drainage Unit.

Thus, Ross Engineers can offer not only major units such as hoods and comfort air conditioning but all the different auxiliary air handling systems that go to make up the complete pulp and paper drying and conditioning operations.

THE ROSS GROUP OF COMPLEMENTING SERVICES

J. O. Ross Engineering Corporation, New York
Andrews and Goodrich Division, Boston
Ross Engineering of Canada Limited, Montreal
Ross Midwest Fulton Corporation, Dayton
Carrier-Ross Engineering Company, Ltd., England
John Waldron Corporation, New Brunswick, N. J.

ROSS ENGINEERING OF CANADA, LIMITED

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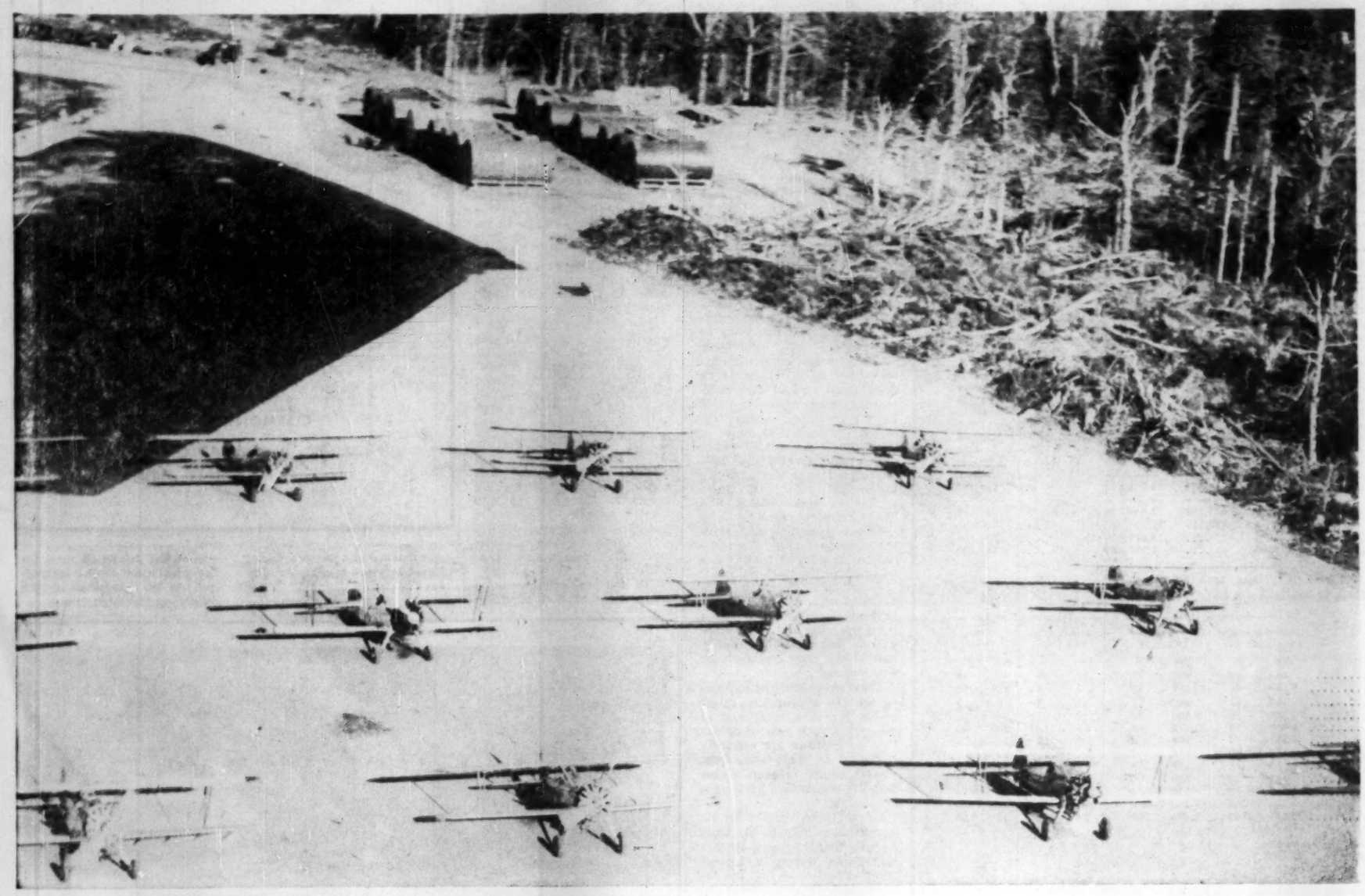


The 'Scramble': *Like World War I fighters, biplanes (above) rev up for take-off in the Battle of the Budworm.*

The Attack: *Angrily streaming their deadly spray, the planes fly low (below) over the worm-infested forest.*

The Enemy: *Budworms strip living trees to skeletons (lower right), ruin forest productivity, hurt industries.*

Air Battle For Forests

Story of the Budworm Blitz

By CLIVE BAXTER

The biggest air fleet of its kind ever assembled this summer reopened Canada's "Budworm Blitz."

For six summers now the skies over New Brunswick and the Gaspe Peninsula have echoed to the snarl of small war surplus training planes as they criss-crossed the area at tree-top height. From each plane — there were 190 this summer — streamed a trail of DDT that looked like smoke. Over 3½ million gal. were used in this year's operation.

The DDT is deadly to the budworm which, in turn, causes havoc in the nation's forests.

Prime contractor this year was **Wheeler Airlines** of St. Jovite, working for **Forest Protection Ltd.**, and the Quebec Forest Industries Association.

Wheeler was responsible for the mobilization of the huge fleet. In addition to the 190 spray planes there were 22 observation and transportation aircraft. They came from all over Canada and many parts of the U. S.

Forest Protection Ltd. is a Crown company jointly financed by the Canadian Government, the Province of New Brunswick, and the paper companies which own or lease timber reserves.

The volume of insecticide used for this operation was so great that Forest Protection built its own blending plant adjoining the dock at Dalhousie, and purchased oil in tanker lots.

Seventy tanks connected with six-in. mains supplied storage for nearly one million U. S. gal. and it was possible to blend up to 40,000 gal. in a 24-hour period.

From Dalhousie it was distributed in bulk or in drums by truck to all the airports.

The inspection pilots whose job it was to drone above the spraying planes to give instructions, were all employees of Forest Protection.

Forest Protection also supplied loaders trained in fire fighting and first aid, clerks, radio operators and traffic controllers, and in fact all personnel except the spray pilots, mechanics and entomologists.

These were employees of the science service division of the federal agriculture department. In all, there were 700 people on the job.

All airports used consisted of two strips, one for landing (1,500 ft.-1,800 ft.) and one for take-off (2,000 ft.-2,500 ft.). All are "U" or "V" shaped or have staggered parallel runways with the loading stands between the two strips.

The stands and 1,000 ft. of the take-off runway were treated to keep the runway clear of dust. As insecticide was pumped at 120 gal. per min. and gasoline at 35 gal. per min. the aircraft needed only two minutes from landing empty to take-off again fully loaded.

The 20 airport sites were selected as closely as possible to the centres of spray areas and were literally hacked out of the forest.

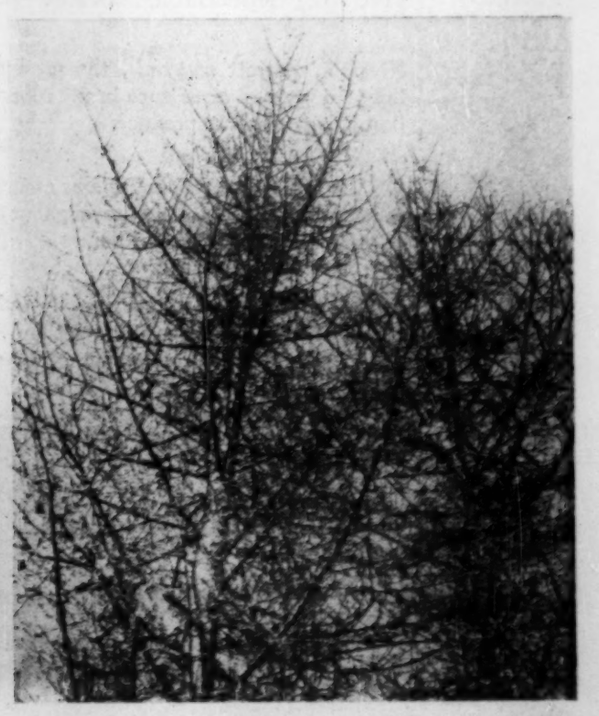
Being far from any source of supply (for instance one strip had 21 miles of road built to connect it to a secondary road which was still 20 miles from the railroad) and as the supply roads are generally impassable in the spring during spraying operations, each airport has to be completely self-contained.

Most of the spraying was carried on the first two hours after dawn and the last two hours before dark. This, generally, was the only time when the air was still enough and temperatures not too high.

This phase of the budworm war is expected to end when the general wind pattern finally pushes the plague of pests out to sea.

But then, if nature repeats itself, a new plague will be starting somewhere inland.

When it does the aircraft will be in the air again.



Fight $4.5 Million Fires by Land, Air

This is a scene on Canada's front line defence against forest fire loss:

Hundreds of fire towers, telephone lines, fire pumps, shovels, rakes, backtack pumps, ready for instant action.

Overhead, the steady drone of aircraft patrolling the vast forest regions equipped with tools and fire-fighting materials.

Despite these efforts, more than 235,000 acres of Canadian forests are destroyed each year by fire.

Trees worth around $4.5 million in wood products are lost. What's more the trees can be replaced only by decades of slow growth.

One of the most spectacular forest fire prevention organizations is the Department of Lands and Forests of the Province of Ontario.

It has a large fleet of fire prevention aircraft, which at the present time consists chiefly of the specially designed "Beaver" and "Otter" aircraft.

Some of these planes are equipped with specialized devices such as aerial water-bombing equipment and, more recently, a water tank mounted on the aircraft pontoons.

With these tanks, the plane can waterspray small fires, like a jet going in on an attack, to extinguish them before they reach dangerous proportions.

In the preliminary report of the Royal Commission on Canada's Economic Prospects it was pointed out that it is important that more be done toward informing the public about the need for conservation and in particular, that owners of farm woodlots be instructed in ways in which they can make a greater contribution to forest products industries while improving their own incomes in the process.

This country still has large reserves of timber to meet the growing demands for wood, but the relative remoteness from the established industries leave us in no position to waste these resources, particularly the more accessible ones, in the profligate fashion that may have been permissible in earlier times.

"A great concern, therefore, is the protection of the forests from fire, insects and disease" the report said. "Research in forest fire protection methods has made great strides during the past quarter century, but even greater efforts are necessary if this hazard is to be kept within reasonable bounds.

"It was suggested to the commission that a new research organization on forest fires be formed under the auspices of the various organizations interested in the forest resources, but independent of governmental agencies.

Death by Forest Fire

SUMMARY OF FOREST-FIRE LOSSES IN CANADA, 1956
Compared with 10-year Average, 1946-1955

		Provinces (1) Annual Average 1946-1955 (2)	Provinces (1) Year 1956 (3)	Yukon and N.W.T. Annual Average 1946-1955	Yukon and N.W.T. Year 1956
Fires under 10 acres	number	4,041	4,061	44	63
Fires 10 acres and over	"	1,240	885	52	36
Total number of fires	"	5,281	5,486	96	99
Area burned —					
Merchantable timber	acres	273,701	645,590	69,110	2,440
Young growth	"	374,720	522,283	41,448	15,353
Cut-over lands	"	197,414	167,700	4,961	35
Non-forested lands	"	590,608	678,470	576,634	74,591
Total area burned	"	1,436,443	2,014,043	692,153	92,419
Size of average fire	"	272	367	....	....
Merchantable timber burned —					
Saw timber	M ft.b.m.	337,234	563,953	13,438	....
Small material	cords	1,256,892	6,755,398	196,583	71,901
Estimated values destroyed (4) —					
Merchantable timber	$	1,922,451	11,623,060	240,597	71,901
Young growth	$	1,021,450	2,261,177	135,854	30,705
Cut-over lands	$	179,227	212,138	1,863	35
Other property burned	$	1,018,364	289,669	17,681	23,604
Total damage	$	4,141,492	14,386,044	395,995	126,245
Actual cost of fire-fighting	$	2,635,609	2,845,106	43,444	34,615
Total damage and fire-fighting cost	$	6,777,101	17,231,150	439,439	160,860
Other fire protection costs	$	....	18,881,582 (5)	....	133,798
Area under protection	sq. miles	....	1,117,169	....	125,000

FOREST FIRES IN CANADA, 1956, BY CAUSES
Compared with 10-year Average 1946-1955

Cause:	Provinces (1) Annual Average 1946-1955 (2) No.	%	Provinces (1) Year 1956 (3) No.	%	Yukon and N.W.T. Annual Average 1946-1955 No.	%	Yukon and N.W.T. Year 1956 No.	%
Camp-fires	846	16	692	13	37	39	42	43
Smokers	1,157	22	699	13	8	8	10	10
Settlers	561	11	389	7	2	2	2	2
Railways	523	10	1,334	24	2	2	..	..
Lightning	1,027	19	1,171	21	25	26	23	23
Industrial operations	251	5	308	6	2	2	..	..
Incendiary	142	3	115	2	..	..	..	..
Public works	85	1	97	2	1	1	..	..
Miscellaneous known	451	8	522	9	2	2	3	3
Unknown	238	5	159	3	17	18	19	19
Total	5,281	100	5,486	100	96	100	99	100

(1) Includes federal lands within provincial boundaries.
(2) Does not include Newfoundland.
(3) Newfoundland included.
(4) Wood values are based on prevailing stumpage rates only; damage to soil, site quality, stream flow regulation, wild life, recreational and similar values is not included.
(5) Estimated charges for new equipment, improvements, maintenance, salaries, etc., for year 1955.
DATA: Forestry Branch, Dept. of Northern Affairs and National Resources.

"Another suggestion is that military personnel might be trained to act as firefighters in cases of emergency as is done in some other countries.

"Considerable progress has been made in research aimed at the control of insect and disease epidemics. The spraying of the spruce budworm infested forests of New Brunswick and Quebec is an example of experimentation designed to this end."

Strict Conservation

The report pointed out that much fundamental research is also needed in the fields of plant ecology and soil science in order to develop improved forest management and utilization techniques. In this connection work now being carried out in site classification should be continued, providing as it does the basis for deciding the economic feasibility of alternative forestry techniques.

The adoption of forest conservation practices is very widespread and in fact compulsory on all crown lands of the 10 provinces. About 77% of the 1¼ million sq. miles of Canadian forest is still under crown management, some 14% has been leased to companies in the paper industry for their productive management and 8% is privately owned.

Forest operators who lease their licensed lands from the provincial governments are required to do many things.

They must present a management plan indicating what amount of timber will be cut from the area and what steps will be taken to make certain that a new crop replaces that which is cut.

These plans must be approved by the appropriate forest officer for each area, and at the end of each year of operation the cuttings are carefully inspected by these same provincial forest officers to see that the regulations have been adhered to.

Under these regulations no more timber may be cut from an area than is grown on that same area during a corresponding period, so that the cut must balance the growth on the average over the course of rotation.

In its simplest form, imagine a forest which takes 80 years to reach maturity being divided into 80 sections, each one large enough to supply the pulp mill or sawmill with its annual supply of timber.

In the first year, the forest licensee can cut 1/80th of the entire timber area giving him sufficient logs, poles or pulp mill products to run the mill for the coming year.

In the second year, he moves on to block No. 2 and does the same thing for that year's operations.

Meanwhile, in the block cut in the year No. 1 sufficient seed trees are left, or sufficient young growth below merchantable size, so that a complete new crop of timber will start on the territory cut in the first year.

Over the entire 80 years the operator would come back to block No. 1 and find that the advanced growth and seed tree reproduction in that area, cut 80 years before, had established a new crop which had then grown to maturity. This type of operation, of course, could make a perpetual operation for the mill.

Not Easy Management

In actual operation, however, the forest management operation is not so simple.

In the first place there are vast differences in the forest land itself from rough, rugged, almost barren areas to the more mountainous sections down to the spruce bogs or muskegs where the timber also may be sparse because of an over-abundance of water or poor drainage.

The better timber on the lower slopes or on the well-drained hillside produces the bulk of the commercial timber, and therefore, the total acreage must be increased so that the average cut over the acres gives the annual mill supply, and this requires more than the factor 80 or 100 times the area which would result if every acre had a uniform and complete stand of timber.

The results show the fact that the timber is not uniform in size or quality over all the territory and fire loss in Canada still requires that forest areas be larger than the total needed for the operation of the mill because a percentage is almost certain to be burned at some time during the 80 to 100 year rotation.

This factor of forest protection in the Canadian forest management scheme is still one of the most serious problems since the factor is an unknown quantity and in some years may be very large and may make a very large inroad into the reserve supply of a mill or a saw timber operation, if a disastrous fire occurs on those particular limits. For this reason, there is every need to prevent forest fires.

Ironically the Canadian public is still responsible for the vast majority of fires.

On an average over the past 25 years, at least 85 fires out of every 100 have been caused through carelessness by campers, fishermen or vacationists using the timber areas of Canada for recreational purposes.

These infractions of the forest fire act are now being viewed with the same seriousness as fires in urban or agricultural areas set by similar carelessness on the part of those visiting or using these areas.

The reasons are evident in reports on damages such as these:

In Ontario last year fires from a single source destroyed as much as 200,000 acres of timber in certain areas at a time when it is becoming increasingly difficult for pulp and paper sawmill firms to find limits or areas large enough to supply the wood which they require for their operations.

One of the greatest losses was in central Ontario in 1948 when reported carelessness on the part of a highway road-building crew destroyed over 600,000 acres of farm timber, some of it the last good stands of white pine timber in eastern Canada.

Fire Prevention

One new educational tool is a "Smokey Bear" forest fire prevention campaign stressing the importance of forest fire prevention and particularly with the need for absolute care with fire in the woods at all times.

The Forest Fire Prevention Associations of Newfoundland and Quebec and the provincial forest services in all provinces are constantly developing new means of providing information to the public on need for fire prevention as the increasing use of the forest by the public continues to rise.

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How Can Lignin Be Put To Use?

Lignin, produced in large quantities in many common pulping methods, still poses a major challenge: How can it be used economically.

Scientists readily admit they know little more about lignin today than they did 50 years ago.

Wood is composed simply of fibres and materials which hold these fibres together. These fibres are found in all plant life and are known as cellulose, one of the big family of hydrocarbons which include sugars, alcohols, petroleum and waxes.

Cellulose accounts for about 50% of the content of wood. The remainder consists of the binder known as lignin, whose chemical behavior is little known, and a relatively small quantity of hemicellulose, which is chemically more akin to the sugars than pure cellulose.

Common methods of pulping attempt a complete separation of lignin and cellulose. The only purpose is to obtain good cellulose in the best obtainable yield with no particular interest in what happens to the lignin.

In the sulphite pulping process, lignin is made available in large amounts. Logs are first chopped into chips and cooked in a bath of chemicals. The lignin is dissolved out, freeing the wood fibres which move on to become paper.

While theoretically lignin is a valuable organic product, it as yet is too complex a chemical to break into component parts for use in production of other chemicals as is done, for example, with by-products of the refining process in the petroleum industry. As a result the great bulk of this material is lost and even becomes a problem in stream pollution.

Some authorities believe the ultimate solution of the problem will only be accomplished by millions of dollars in capital outlay to redesign systems in pulp mills. Aim would be to develop a closed recovery system by which practically all the materials circulating in the digestive tanks and pipes in the mills will be recoverable as valuable by-products.

This large investment is an item which must be carefully studied in the light of the entire economics of the pulp and paper industry.

The added costs are a critical consideration in the competitive world markets, and particularly at present with capacity exceeding demand for pulp products.

Atomic Method

One of the positive steps toward solution of the lignin wastes problem has been research by the Pulp and Paper Research Institute of Canada. It has developed a device known as the Atomic Suspension method of burning sulphite mill waste, and in fact the organic waste from any municipal or industrial plant.

This method involves use of a large stainless steel tube which is heated to approximately 1,500 deg., and acts as a furnace into which the sulphite liquor or other organic solution is introduced in very fine droplets for almost instantaneous conversion into steam and into the ash of the various chemicals introduced.

The system makes good use of the minute elements in the suspended liquids since these are recovered as dry ash, but the organic materials are consumed and only become of value as additional heat.

The atomic suspension technique is merely a stage toward the closed recovery system in the pulp mill itself. Then the valuable by-products will be used for something more useful than fuel.

The atomic suspension reactor and other research handled by the institute will soon be centred in a new building being built at Pointe Claire, west of Montreal.

Big Advance

While much study has been done on sulphite waste liquor, its complete utilization is far from being solved.

Advances have been considerable, nevertheless.

One plant in Canada and one in the U. S aerate and neutralize the liquor and then ferment the sugar to alcohol. The yield is about 1% of alcohol by volume of waste liquor.

Related to this is production of yeast from waste sulphite liquor with at least one plant in operation in the U. S.

The evaporated waste sulphite liquor solids have also been used in adhesives, fertilizer, plastics, road treatment, core binder, insecticides, dyeing, emulsion, etc.

But the areas to conquer are still vast. There have been suggestions that the vast amounts of lignin could probably be used if a low-priced vanillin could be developed as a basis for fine chemicals, plasticizers, drugs, antiseptics, and resins to be made from it.

Among the companies actively engaged in lignin work are **Howard Smith Paper Mills Ltd.**, and **Ontario Paper Co.**, Thorold, Ont.

In Quebec City lignin has become the basis for an industry which produces products used, among other things, in tanning shoe leather, drilling oil wells, making gypsum wallboard and preventing frost heave in concrete.

Finding New Uses

The story of this project goes back to 1943 when the development department of **Northeastern Paper Products Ltd.**, a joint research group of **Anglo-Canadian Pulp & Paper Mills Ltd.** and **Anglo-Newfoundland Development Co.**, built a small pilot plant at Chandler, Quebec pulp mill of **Gaspesia Sulphite Co.**

Its purpose was recovery and study of these lignosulphonates and for seven years it built up a fund of technical data. Market surveys were made and the pilot plant eventually expanded into a manufacturing plant producing commercial quantities.

Scientists, meantime, were finding new uses of lignosulphonates, and several industries were beginning to adapt new lignosol products into their manufacturing processes.

As demand was developed, **Lignosol Chemicals Ltd.** was incorporated as part of the "Anglo" group of companies and in 1952 it completed a new plant in Quebec City at a cost of $1.5 million.

The company began processing the spent sulphite liquor produced at a neighboring newsprint mill owned by its parent, Anglo-Canadian. Since its inception, sales have increased at the rate of more than 25% per year. Today the company is producing close to capacity and expansion plans are on the boards.

The research work is not confined to the lab. The economic significance of the facts established there can only be assessed in the field.

Chemists in the lab have shown, for example, that lignosulphonates will combine with a hard substance. Chemists of the company have found how to make that combination into leather.

Chemists also have worked with the "mud engineers" at oil wells during an Alberta winter. The information they gathered was translated into chemical terms and yielded a new drilling mud thinner.

Cuts Out Frost Heaves

Lab studies show that compaction of soil in the presence of a dispersing agent will make it impermeable. Lignosol chemists used this principle to eliminate frost heaves on railroad embankments.

The substance in one or another of the 15 different forms that emerge from the Quebec plant, also finds its way into such widely different products as insecticides, ceramics, chemicals, gypsum wallboard and cleaning compounds. Roadbuilders find it useful in keeping down dust as well as preventing heaving due to frost. Mining companies have been greatly interested lately in its properties as a dispersant and a binder.

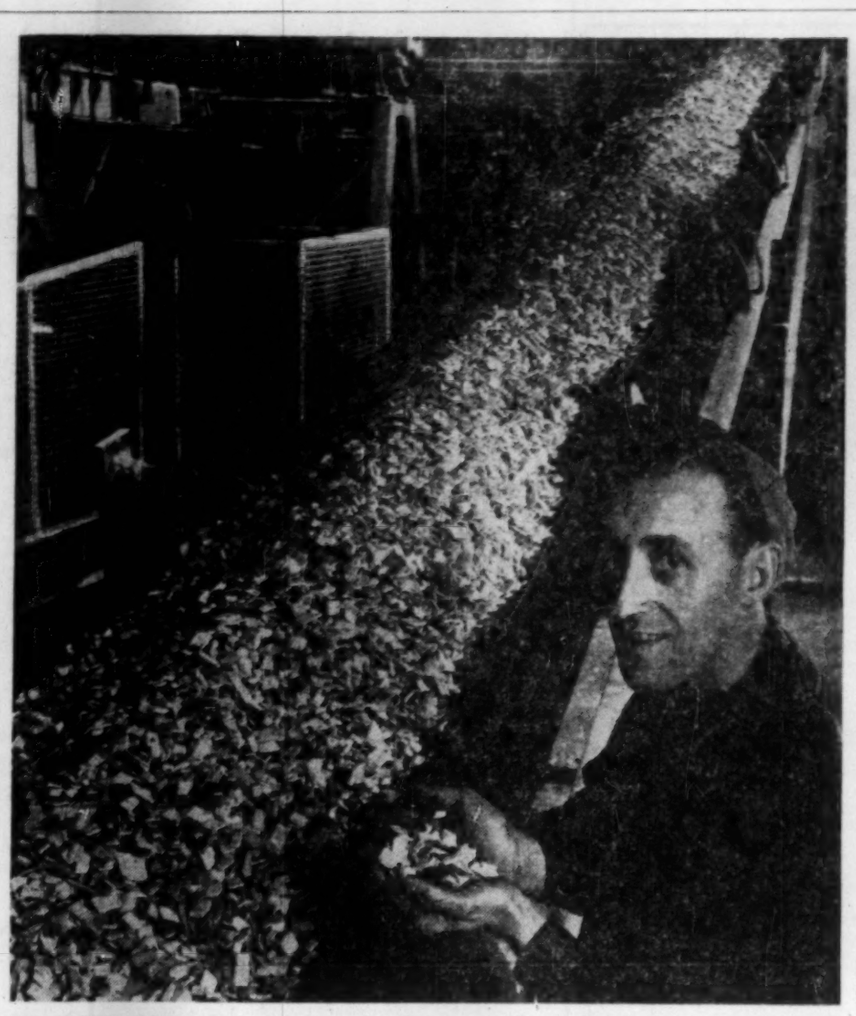
In one case recently, use of lignosol by a Quebec cement manufacturer made it possible to use less water in grinding the rock, and led directly to substantial increases in output and a substantial saving in fuel costs.

One of the aims of the company has been to expand into the world markets. As a result, in the beginning it launched an aggressive sales campaign, taking advantage of its position on tidewater, which meant avoiding transshipment and substantial savings effected in inland freight charges.

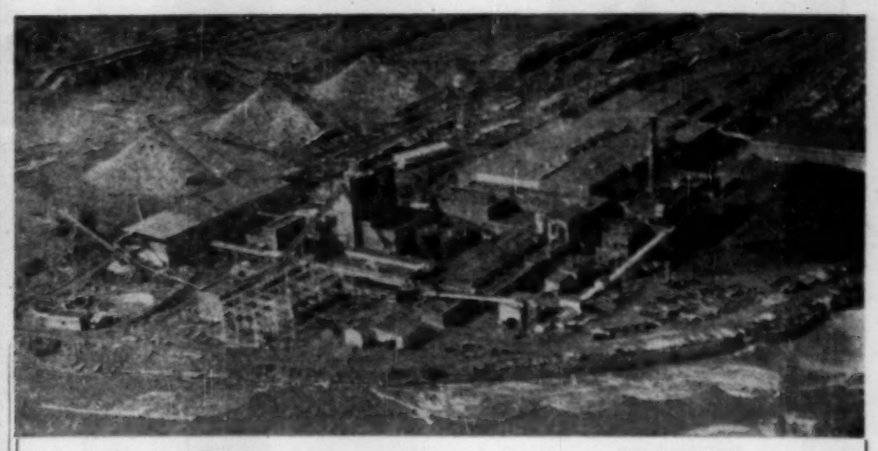
As a result, more than 40% of company's production today moves into export markets, mainly in the U. S. Tanneries across Canada, and in New England comprise one of its biggest markets.

Concrete additive manufacturers in Ontario and Quebec and in New York, Ohio, Massachusetts and Colorado are others.

Gypsum wallboard producers throughout Eastern Canada use lignosol, and so do their counterparts in Michigan, Ohio, and New York.



CHEMICAL PULP provides raw materials for paper and paperboard, also such varied products as rayon, photo film, paints and lacquers, explosives, artificial sponges, plastics and cellophane. Here are wood chips soon to be converted into chemical pulp through cooking in a large digester.



Biggest in the world!

Three hundred and forty two inches! That's the width of the roll of newsprint soon to come from the fourth paper machine being installed by the Great Lakes Paper Company Ltd., at Fort William, Ontario. It is the biggest newsprint machine ever built.

The $35 million current phase of expansion at the Great Lakes mill is typical of giant new capital investment in the forest products industry of Northwestern Ontario.

Names famous in the world of pulp and paper—Abitibi, St. Lawrence, Dryden Paper, Ontario and Minnesota—are enlarging and improving most of the 10 huge mills that dot the face of the northwest.

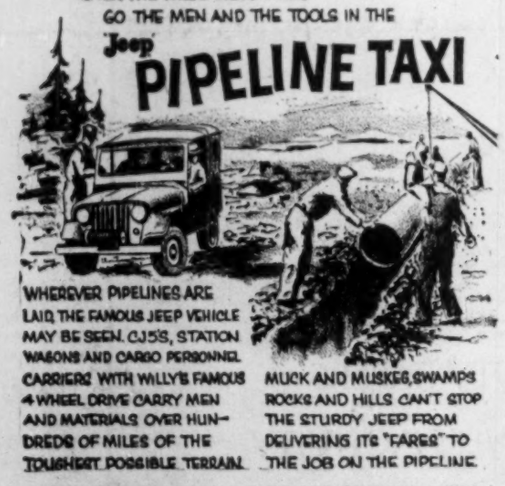
Simultaneously, diversity in the use of our conifers and hardwoods grows apace: Plywood, finished lumber and numerous processed products to serve construction, transportation, communication and other needs of Canada.

NORTHWESTERN ONTARIO DEVELOPMENT ASSOCIATION

Room 208, News-Chronicle Building, Port Arthur, Ontario

TRUE ADVENTURES WITH THE Jeep

OVER THE WILDERNESS MILES GO THE MEN AND THE TOOLS IN THE Jeep PIPELINE TAXI



WHEREVER PIPELINES ARE LAID THE FAMOUS JEEP VEHICLE MAY BE SEEN. CJ5'S, STATION WAGONS AND CARGO PERSONNEL CARRIERS WITH WILLY'S FAMOUS 4 WHEEL DRIVE CARRY MEN AND MATERIALS OVER HUNDREDS OF MILES OF THE TOUGHEST POSSIBLE TERRAIN.

MUCK AND MUSKEG, SWAMPS ROCKS AND HILLS CAN'T STOP THE STURDY JEEP FROM DELIVERING ITS "FARES" TO THE JOB ON THE PIPELINE.

JUST ANOTHER EXAMPLE OF THE FAMOUS 'JEEP' 4 WHEEL DRIVE VEHICLE IN ACTION EVERYWHERE!

Jeep 4 Wheel drive SALES SERVICE PARTS

'JEEP' DISTRIBUTORS AND DEALERS OFFER COAST TO COAST SALES, PARTS AND SERVICE

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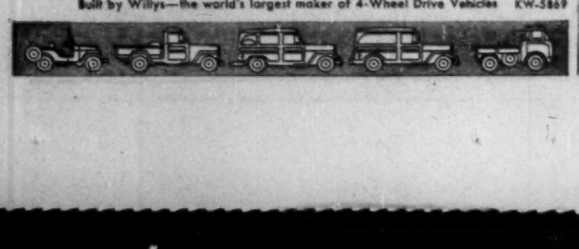
CALGARY, Alta., Modern Motors Ltd., 1538 9th Avenue East
REGINA, Sask., Western Equipment Ltd., 1630 St. John St. (Also Saskatoon)
WINNIPEG, Man., Midwest Mining Supplies Limited, 860 King Edward Street
TORONTO, Ont., Willys Ontario, 2301 Queen Street East
MONTREAL, Que., Cooke Toledo Motors Ltd., 2134 St. Catherine St. West
QUEBEC, Que., Auto Moderne Ltée, 498 rue de la Couronne
FREDERICTON, N.B., Capital Garage Ltd., 355 Campbell Street
HALIFAX, N.S., Provincial Motors Ltd., 2 Queen Street
ST. JOHN'S, Nfld., Baird Motors Ltd., Merrymeeting Road

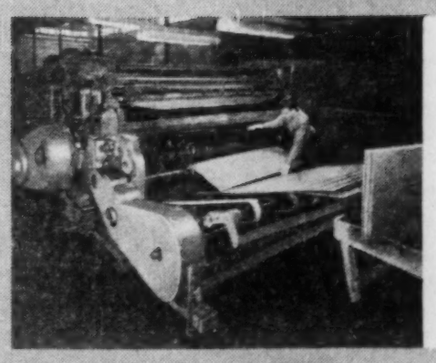
WILLYS OF CANADA LIMITED
WINDSOR, ONTARIO
Canada's most useful vehicles
Built by Willys—the world's largest maker of 4-Wheel Drive Vehicles KW-5869



HOW BATHURST OPERATES TO SERVE YOU

COLOR

Only Bathurst has the printing equipment to produce every kind of corrugated container in color.



Stepping into the lead in the production of color corrugated containers in Canada, Bathurst now offers customers "all the colors of the rainbow". A combination of multicolor and printer-tinted effects gives shippers the widest possible range of choice. That's why you can—in full color designs of your own choosing—*advertise and sell anything ... anywhere ... in Bathurst Containers.*

FROM FOREST TO PACKAGE

BATHURST CONTAINERS, division of

BATHURST POWER & PAPER COMPANY LIMITED

Principal Sales Offices: Montreal, Toronto, Hamilton
Container Plants, Corrugated Products: St. Laurent and Montreal, Que., and Toronto, Hamilton, Whitby, Ont.
Container Plants, Wood Products: Montreal, Que., and Toronto, Ont.
Pulp and Paperboard Mills: Bathurst, N.B.

57-9

1956 Export Picture in Detail

	Total Exports		To U. S.		To U. K.		To Other Countries	
PULP—	Tons	Value	Tons	Value	Tons	Value	Tons	Value
Kraft	916,397	$119,694,854	790,889	$104,327,508	53,945	$ 6,630,547	71,563	$ 8,736,799
Bleached	684,435	95,086,026	610,801	84,802,979	33,971	4,723,092	39,663	5,559,955
Unbleached	231,962	24,608,828	180,088	19,524,529	19,974	1,907,455	31,900	3,176,844
Sulphite — Bleached	746,509	113,842,322	541,166	72,153,193	73,476	11,514,473	131,867	20,147,656
Dissolving	303,423	53,939,400	175,481	32,374,917	35,700	6,622,621	92,242	14,841,862
Paper Grades	443,086	59,902,922	365,683	49,778,276	37,776	4,891,852	39,625	5,232,794
Sulphite — Unbleached	375,212	44,323,756	301,028	35,376,082	67,601	8,188,917	6,583	758,757
Strong	232,617	27,217,768	217,736	25,561,245	8,314	899,704	6,567	756,819
News	142,595	17,105,988	83,292	9,814,837	59,287	7,289,213	16	1,938
Total Chemical	2,038,118	$277,860,932	1,633,083	$221,856,783	195,022	$26,333,937	210,013	$29,670,212
Mechanical	274,741	19,593,680	227,136	16,378,070	47,487	3,204,762	118	10,848
Bleached	44,395	3,252,441	44,232	3,240,061	163	12,380	....	....
Unbleached	230,346	16,341,239	182,904	13,138,009	47,324	3,192,382	118	10,848
Other Pulps	44,950	6,395,205	43,211	6,158,998	1,655	224,221	84	11,986
Screenings	16,204	686,680	16,204	686,680	....	....	....	....
Chemical	6,415	238,947	6,415	238,947	....	....	....	....
Mechanical	9,789	447,733	9,789	447,733	....	....	....	....
Total Miscellaneous	335,895	$ 26,675,565	286,551	$ 23,223,748	49,142	$ 3,428,983	202	$ 22,834
TOTAL PULP	2,374,013	$304,536,497	1,919,634	$245,080,531	244,164	$29,762,920	210,215	$29,693,046
NEWSPRINT PAPER —								
Standard	5,967,194	708,384,822	5,218,911	615,941,551	347,905	41,531,514	400,378	50,911,757
Mutilated	17,992	1,266,707	11,086	840,981	6,876	422,254	30	3,472
TOTAL NEWSPRINT	5,985,186	$709,651,529	5,229,997	$616,782,532	354,781	$41,953,768	400,408	$50,915,229
OTHER PAPER —								
Wrapping — Coated	49	26,945	5	2,796	3	1,813	41	22,446
Wrapping — Kraft	13,457	2,394,180	5,787	958,905	3,375	610,393	4,295	824,882
Wrapping — n.o.p.	1,805	298,646	1,202	157,563	349	72,748	254	68,335
Book	38,239	7,137,201	30,437	5,148,988	956	274,218	6,846	1,713,995
Bond & Writing	6,392	1,998,566	48	19,714	489	160,734	5,855	1,818,118
Paperboard — n.e.p.	67,956	9,058,868	12,448	1,603,163	54,002	7,205,679	1,506	250,026
Roofing & Building	445	41,436	44	6,591	53	14,009	348	20,836
Building & Insulating Board	38,566	3,737,146	32,837	3,259,733	2,508	190,794	3,221	286,619
Waste Paper	36,072	1,569,451	35,644	1,549,776	....	....	428	19,675
Pulpboard for Wallboard	11,087	1,224,360	10,781	1,195,698	306	28,662	....	....
Tissue	472	136,071	*	49	....	....	472	136,022
Toilet	3,725	803,332	97	23,422	998	251,765	2,630	528,145
TOTAL OTHER PAPER	218,265	$ 28,426,202	129,330	$ 13,926,398	63,039	$ 8,810,815	25,896	$ 5,688,989
PAPER PRODUCTS — (a)								
Bags, Boxes & Cartons	....	484,525	....	108,364	....	2,143	....	374,029
Bags	....	287,353	....	32,271	....	....	....	255,082
Boxes & Cartons	....	197,172	....	76,093	....	2,132	....	118,947
Hangings or Wall Paper	....	943,495	....	846,133	....	2,396	....	94,966
Hanging, not Printed	....	748,827	....	654,396	....	94,431	....	....
Writing — n.o.p.	....	66,691	....	7,065	....	338	....	59,288
Handkerchiefs — Tissues	....	14,986	....	800	....	281	....	13,905
Napkins & Towels	....	216,347	....	175,186	....	1,578	....	39,583
Blank Books	....	107,163	....	1,293	....	338	....	105,532
Paper — n.o.p.	....	179,761	....	89,071	....	4,451	....	86,239
Other Paper Products	....	452,419	....	212,892	....	1,196	....	238,331
TOTAL PAPER PRODUCTS	....	$ 3,214,214	....	$ 2,095,200	....	$ 107,141	....	$ 1,011,873
GRAND TOTAL	8,577,464	$1,045,828,442	7,278,961	$877,884,661	661,984	$80,634,644	636,519	$87,309,137

*Less than half a ton.
(a) Weight of paper products is unavailable.
n.o.p.: Not otherwise provided for.
Source: Dominion Bureau of Statistics.

STANDARDIZE ON CUMMINS

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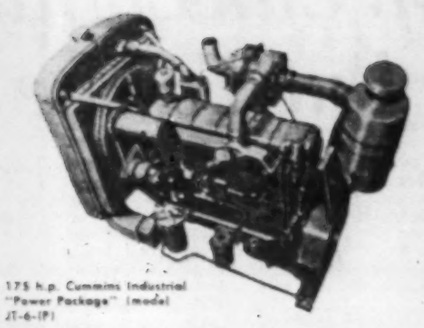
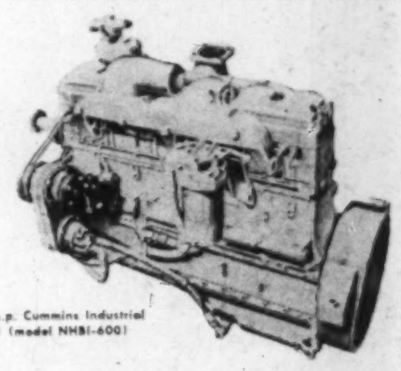
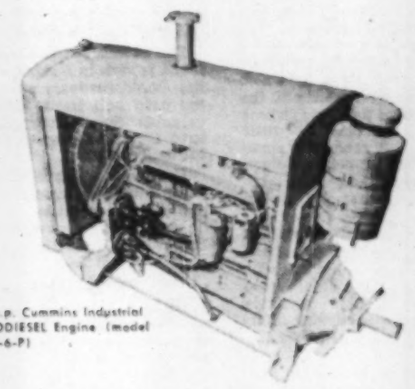


175 h.p. Cummins Industrial "Power Package" (model JT-6-P)



220 h.p. Cummins Industrial Diesel (model NHBI-600)



335 h.p. Cummins Industrial TURBODIESEL Engine (model NRTO-6-P)

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6-21-57

The Challenge: Cut Pulp Costs

Cut costs!

This is a major aim and challenge to Canadian pulp and paper companies.

One large area in which they are determinedly attacking the problem is in pulpwood. Today, pulpwood costs represent about 25% of newsprint price.

And, pulpwood costs have been advancing at a faster rate than newsprint prices. Since 1926, costs of pulpwood have risen by some 115% while the average price of newsprint is only up about 80%.

Where do you attack?

Along the long production line which involves fellers, peelers, buckers, skidders and horses. Men have to pile the pulpwood by hand, strip wood; scalers are needed to scale the wood, crews to load sleds by hand; men to drive out the sleds to the truck road and unload the wood; a loading crew and road maintenance men and equipment.

But the possibilities of fewer men, better equipment, faster production, less camp overhead, closer utilization, virtually all-year-round operations under most weather conditions, all open up vistas of sharp cost savings.

Mechanization has been making important strides in Canadian woods and for the future will make even greater. That's why pulp and paper companies are actively studying, if not trying out, new devices and methods such as wheeled tractor skidding of tree lengths, bundle yarding, whole tree logging, chemical treatment of trees.

It was only in the past decade that the modern lightweight power saw was introduced into the woods. Today, they are more efficient and more economic than ever before, produce perhaps 80% to 85% of all pulpwood cut in the country and in some areas, 100%. They have increased production by 20% over the older method of hand-sawing.

Despite this excellent record, there are officials in the industry who believe the power saw will go out of existence within 25 years because of new developments afoot.

New Barkers

One revolutionary new advance has been made in Scandinavia which has radically altered concepts of pulpwood barking particularly in respect to barking in the woods. For the first time there is a feeling that it will make possible barking of pulpwood on an economic basis.

The new barkers will operate with any length of wood from 3½ ft. to full lengths. Hourly capacity is as high as that of the drum barker and power requirement is low. In the past portable barkers produced from three to 10 cords per man day with wood losses up to 20% quite common.

Since bark represents about 13% of the wood volume per cord, if barking takes place prior to shipment there will be a 13% decrease in volume and a corresponding increase in the cords per rail car. The cars will take 20 cords each of rough wood but close to 2½ to three cords more of peeled cords.

The result: saving in switching charges and other costs which are fixed on a car basis rather than a cord basis.

This is important because freight rates on pulpwood have increased about 100% since 1948. On the basis of a 15c-per-cwt. freight rate charge (not considering the most recent hike of about 7% at the end of August) and an assumed weight of about 4,400 lb. to the cord, it is now costing $6.60 to ship a cord of rough wood.

Of this cost, bark alone costs 79c to ship.

Another type of barking which has been introduced in the woods has been chemical treatment of trees to aid in weight reduction of wood in a standing tree. **Howard Smith Paper Mills Ltd.** has found the process of applying chemical to pulpwood trees definitely facilitates removal of bark both in bush operation and at the mill.

Savings in freight hauling also result from this type of treatment. Even if the chemically treated wood is shipped to the pulp mill as rough wood, less bark reaches the mill in comparison with ordinary rough wood, thereby helping to alleviate the bark disposal problem at the mill.

The steadier flow of wood can be maintained at pulp mills as well as steadier employment for the bush laborer. A reduction in holding charges and fire prevention costs is another advantage. Before chemical treatment of trees, it was necessary to pile rough pulpwood in bush yards for seasoning which involved caring charges as well as fire insurance. Today, because of this new treatment it is possible to eliminate an appreciable amount of these charges.

In the postwar years, more and more the trend has been toward mechanization and mechanical logging.

Of the many mechanical logging methods evolved, bundle yarding is a method of wood handling so that piles of pulpwood are skidded from strips to haul road by means of a power-operated winch with haul lines passing through blocks hung on a portable mast or spire. It is a method which can be applied to harvesting areas where sufficient wood can be cut and piled in strips and where truck haul roads can be economically constructed. It also lends itself to year round operations.

Where conditions are suitable, mills have found operation costs are lower than with conventional horse logging and production per man-day greater. The use of sleighs resulting in high investment and maintenance costs is eliminated.

Mechanical Logging

Within the past year, there have been three new types of units developed in yarding operations. One is a self mobile unit, mounted on rubber with one power plant carrying both the yarding unit and the carrier. This unit has a potential of up to 20 to 25 cords per hour, using a four-man yarding crew and it is reasonable that it should average about 15 to 20 cords per hour.

Another similar unit has been developed but mounted on a crawler-tractor assembly instead of on rubber. On this unit both the boom and the guide lines are hydraulically powered and the boom can be raised or lowered anytime during yarding cycle. It will handle up to a two-cord bundle and has averaged 140 cords per day for a sustained period.

A third method involves a turntable which permits the whole yard assembly to be rotated through 360 degrees.

One of the most significant advances in the past year or two in skidding and yarding equipment is development of wheel units suitable for skidding of tree length material from stump to main road or landing.

There are said to be at least seven different units in various stages of development which vary from small to large in size and from $8,000 to $40,000. They are all-wheel drives, have good flotation, high tractive efforts and mount a winch.

Various forms of mechanical power and techniques have been employed to mechanize in the stumped primary landing stage of pulpwood production. Two of the best-known methods are bundle and tree length cable and yarding. The wheeled tractor method has also been developed which skids tree length material.

Briefly, the trees are felled, limbed and topped (to 3½-in. diameter), stumped, and the tree lengths then skidded by wheeled skidders to a central slashing point. At the slasher the material is processed into eight foot lengths and loaded by a conveyor onto haul trucks.

KVP Co., Canadian subsidiary of Kalamazoo Vegetable Parchment Co., has found this lends itself to a wide range of forest conditions; average production per man per day has greatly increased, amount of road required is reduced to a minimum, and less money is tied up in wood inventory in the bush than in conventional logging.

The units are not successful in swamp areas. As yet KVP, however, has had no experience with an unbroken typography although they have operated successfully on steep slopes.

Since Canada exports in pulpwood, and pulp and paper, to the U. S. alone the equivalent of 80% of its pulpwood output, this country must keep its prices competitive. Trends indicate the U. S. will continue to increase at a rapid rate both its production of pulpwood and its consumption of products.

If Canada can maintain competitive quality, quantity and price she will have a continuing market in that country.

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Sloan Report Guides Future of B.C. Pulp and Paper

Pulp and paper men as well as all other participants in British Columbia's big and growing forest industry have waited anxiously throughout this summer for the new report that has come from Chief Justice Gordon Sloan.

See page 91.

They were waiting for it eagerly because, just as he had charted the course for the industry ten years ago, the chief justice was preparing to point the way again, and no one could help being interested in the direction he might choose.

Because the recommendations of the Sloan Royal Commission on Forestry a decade ago had a great deal to do with the legislation subsequently framed and enacted by the B. C. legislature for the administration of the forest resource and the development of what has become a $628 million industry.

Of this substantial, total annual value of production from the province's timber resources, pulp and paper accounted for nearly $177 million in 1956, and it is significant that half a dozen years ago this figure was less than $70 million.

A substantial part of the increase since then—and it is a continuing increase—is directly due to the expansion resulting from the original Sloan report.

Gave Needed Impetus

That report resulted in the establishment of B.C.'s forest management license system and while it has been a controversial question in recent years there is no doubt that the existence of this system, guaranteeing adequate wood supplies for an indefinite period, provided the needed impetus for construction of new pulp and paper processing plants.

It was not merely coincidence that the first postwar pulp mills came into being shortly after the Sloan report was handed down and the Provincial Government hastily went ahead with the forest management license plan whereby owners of timber were given access to additional and adjacent government forest sufficient to carry them over the long term.

Until in 1946, **Bloedel, Stewart & Welch** launched their unbleached kraft mill at Port Alberni, there had been no new mills in British Columbia for a good many years. The two major pulp and paper manufacturing units up to that time — **Pacific Mills** at Ocean Falls and **Powell River Co.** at Powell River—belonged to a different era—40 or more years ago.

New capacity had come into production during the war, such as **Sorg Pulp Co.** at Port Mellon, but in that case a mill was reconditioned and put in operation after years of spasmodic operation under different managements.

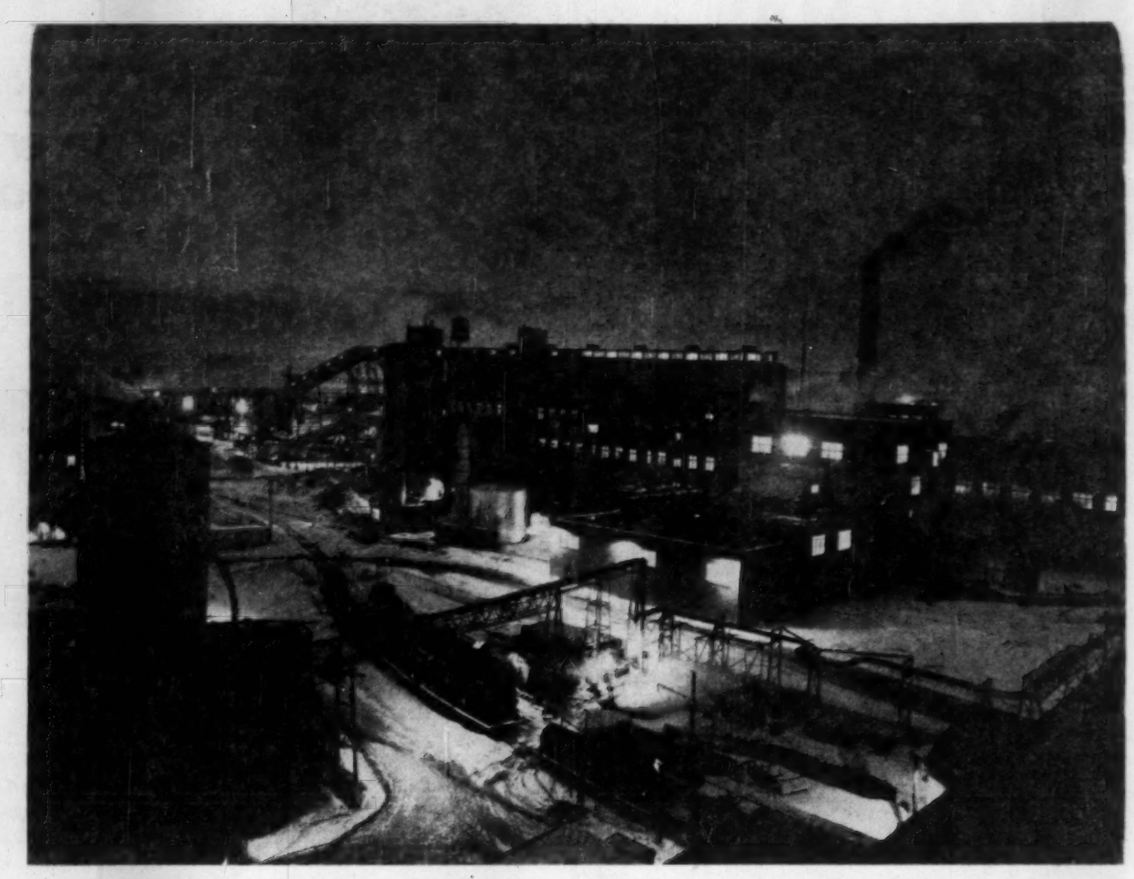
It wasn't until the "forest management era" introduced by the Sloan report that the pulp and paper industry really came into its own west of the Rockies.

Historic Venture

Soon after the Port Alberni mill was built — strangely enough near the site of a short-lived pioneering venture in paper-making some 65 years ago—the second postwar mill at Harmac was built by the **H. R. MacMillan Export Co.**, the two mills being subsequently joined under the **MacMillan & Bloedel** banner when the two big forest industry companies merged.

While the Harmac mill was on the drawing boards, **Columbia Cellulose Co.**, subsidiary of **Canadian Chemical & Cellulose (Celanese Corp. of America** affiliate), applied for and was granted the first management license resulting from the legislation implementing the Sloan report, and a high alpha pulp mill began to rise at Prince Rupert.

Then **Canadian Western Lumber Co.** and its associates won the second forest management license covering an area on northern Vancouver Island and adjacent islands, and on the strength of this Pacific Mills joined Canadian Western and later were joined in **Elk Falls Co.**, with a newsprint mill at **Duncan Bay**, near the mouth of the Campbell River.



CANADA HAS 80 pulp and paper companies, some large, some small, operating 130 mills in eight provinces. Almost one third of the wood fibre requirements of the U.S., the largest pulp and paper producer in the world, comes from Canada.

Pacific Mills had always been tied to the **Crown Zellerbach** organization in the U.S., and now CZ became a more active and extensive participant in the forest industry of British Columbia, establishing **Crown Zellerbach Canada.**

Since these developments, both MacMillan & Bloedel and Crown Zellerbach Canada (Elk Falls Co.) have embarked on giant expansion moves at Port Alberni and Duncan Bay, respectively, representing a total investment of more than $110 million.

It may be too much to credit the forest management program, with its expression in practical terms of the principle of sustained yield, for all this expansion, but it has been certainly a major factor. And these developments provide part of the reason for industry's expectancy as to the sequel of another Sloan report and set of recommendations.

There would have been activity in the pulp and paper field in B. C. regardless of the report, because of the existence of those natural resources so essential to production—ample forests, water supplies, hydro-electric power, tidewater location for mills and water transportation, an increasing pool of skilled labor and growing markets. But the pace would probably have been slower.

Even before the first Sloan inquiry was contemplated companies such as Powell River Co. had started on a program that was to see the installation of two more high-speed newsprint machines. This, with the action of **Canadian Forest Products** in taking over the Port Mellon pulp mill and modernizing it to the point where it bears little resemblance to the original, cannot be attributed to the possession of forest management licenses, because this company has none.

But there is no doubt that the prospect of acquiring sufficient timber, by way of the new license system, provided the motivation for **B. C. Forest Products** in building a bleached kraft mill at Crofton, on Vancouver Island, which will go into production before the end of this year.

Similarly, **Celgar Ltd.**, another affiliate of Canadian Chemical & Cellulose, would not now be proceeding with plans for a pulp mill near Castlegar in the Kootenay district if it had not obtained its license to timber.

Prospective construction of a chemical pulp mill near Quesnel in the Cariboo district by **Western Plywood Co.** hinges on the receipt of a forest management license, expected to follow presentation of the second Sloan report.

The climate for expansion has generally been favorable in B.C. for the past decade, and of course this has affected many industries other than pulp and paper, even though the latter has probably been the most striking manifestation of the postwar industrial surge in this part of Canada.

There has recently been a tendency for British Columbia pulp and paper companies to extend their operations into other regions, as indicated by Powell River Co's acquisition of the **Brooks-Scanlon** properties at Bend, Ore., and plans for building of a pulp or paper mill near there, and by **Westminster Paper Co's** purchase of the Crabtree Mills of **Howard Smith Paper Mills** near Montreal in recent weeks.

Every operating company has expanded in one way or another. **Sidney Roofing & Paper Co.**, for instance, is moving its plant from Victoria to the Vancouver area—a project that will cost some $7 million.

But all these moves should not be construed as a sign that the pulp and paper industry's path is strewn with roses. Some of the lustre has gone from the bright picture that faced the industry a few years ago when expansion plans, now being carried to fulfilment, were initiated.

However, most of the industry's problems are those that confront the pulp and paper business in all parts of Canada —rising costs, less favorable markets, the bugbear of the premium dollar and its effect on exports, labor's demands for ever-increasing wages, rising transportation rates, world competition.

"We have always had problems," said one prominent operator recently. "But we may never have had so many of them all at once."

Despite all the expansion that has taken place, coupled with some of the difficult circumstances mentioned, there is general confidence in B.C.'s pulp and paper industry.

Most of the companies have presented financial statements this year showing a decline in earnings, but in several cases these have been more a reflection of declining prices for lumber and other products apart from pulp and paper. Nearly all the pulp and paper mills are allied with lumber, plywood or other wood-processing operations.

What has happened to the markets for pulp and paper is precisely what most industry leaders foresaw, so the events of the past few months have caused little surprise.

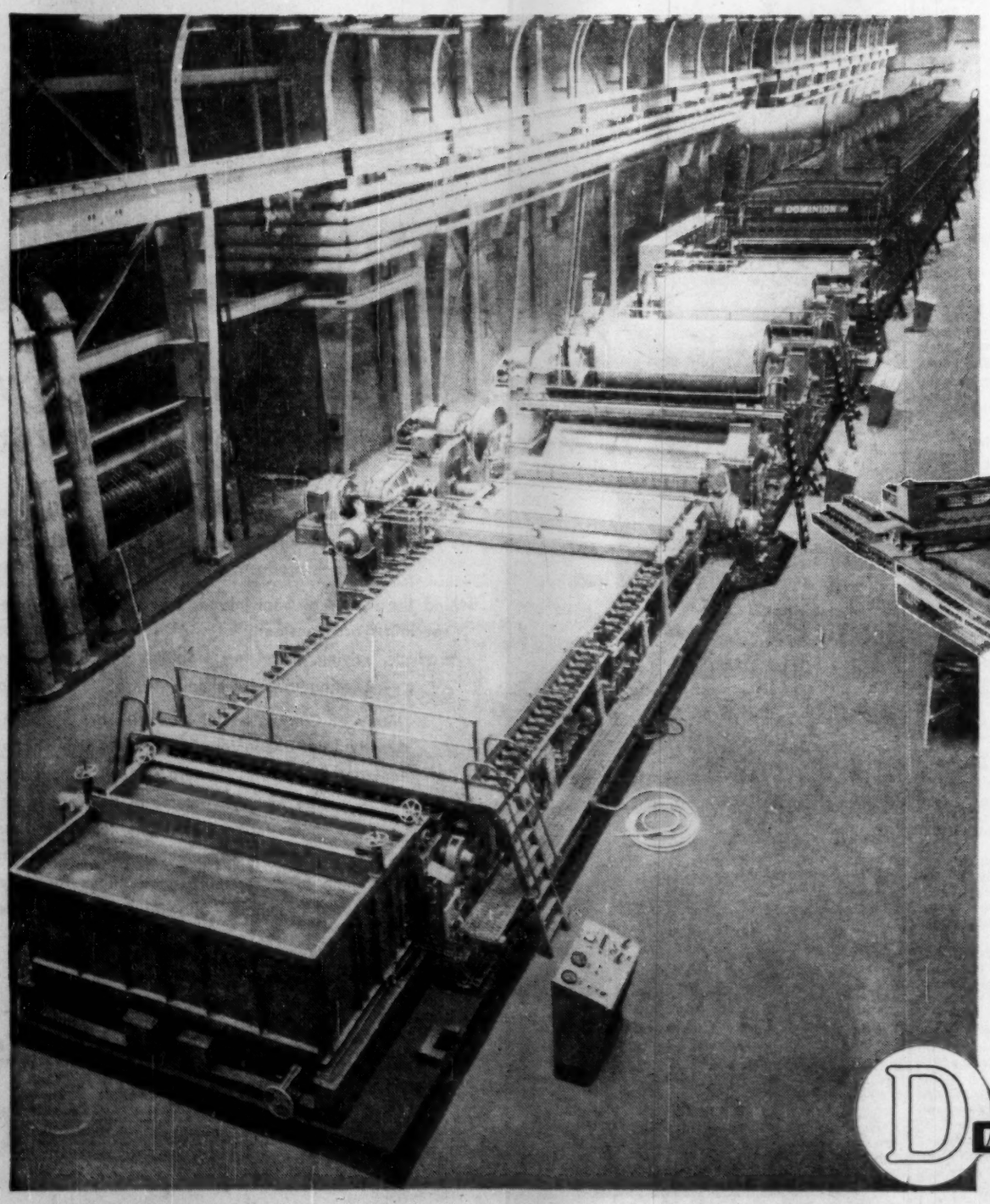
If there should be an overproduction of certain grades of pulp and of newsprint, the industry is prepared to take it in stride, in full recognition of the basic fact that a boom can't last forever.

During the next few years fewer new mills may come into production in B.C., even though several are in the planning stage, but there will probably be a greater stability as the various companies consolidate their holdings and work out a realistic program of operation.

Increasing stress will be upon mechanical improvements and automation, wider diversification and more complete utilization of raw ma-

Continued on page 78

The Dominion Vacuum Drying Pulp Machine



installed at North Western Pulp & Power Limited's Pulp Mill at Hinton, Alberta was designed, and built by DOMINION ENGINEERING WORKS LIMITED

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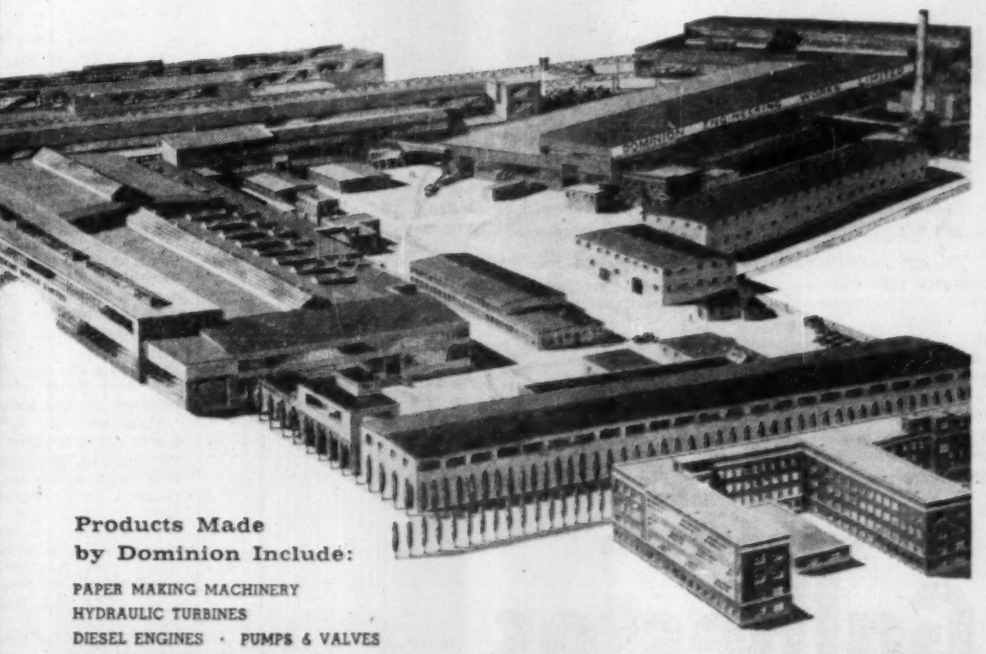

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Future Bright for Wrapping Paper But Tough Competition From U.S.

Production of wrapping paper in Canada has increased considerably during the post-war years—more than doubling in quantity.

But as an industry, wrapping paper is still only near the beginning of its potential, some industry men believe.

One problem restraining growth now is an old one in U.S.-Canadian trade relations.

In the U.S. a manufacturer can afford to run off an extra 10% on his production run and sell it in Canada. That same total Canadian consumption makes a poor over-all market for our companies.

For that reason Canadian wrapping paper makers tend to hang back, get their new ideas second hand. Canadian firms argue that in peak production times they have not the space and time to pioneer in the small wrapping paper field, in less busy times they cannot afford it.

This should all change at a certain point in the expansion of the home market. Exactly what that point is, experts are not yet clear.

Last year Canada produced some 281,000 tons of wrapping paper valued at nearly $60 million. That was almost a 10% rise over the 1955 figure of 258,000 tons. Of this total less than 10% was exported, the rest was for home consumption.

So far this year, production is down below the 1956 rates. But makers hope eventually by year's end it will have equaled the 1956 figure. Reasoning for this is that credit restrictions have hit some customers, predominantly the building trade with its demand for cement bags, and this has persuaded other companies to cut down on inventories.

For that reason a number of customers in the first half of 1957 were using up inventories of wrapping paper, and were expected to begin placing heavier orders in the second half of the year.

The future would seem attractive for wrapping paper. A projection into 1980 shows that with increase in population, production and exports of wrapping paper should be produced at the rate of 515,000 tons per year. Exports that year, it is assumed, will be almost 40,000 tons.

Bursting with Ideas

The term wrapping paper may suggest the rolls of harsh brown paper that used to sit prominently on every shop counter across the country. That type still accounts for 20% of the market, but it is falling off.

Wrapping paper industry is bursting with new ideas—almost all from the U.S. at present. Paper, textiles and chemicals fight an endless war for the prizes of the packaging trade.

An important recent move by the wrapping paper team was to produce a "one trip" paper mail bag for the U.S. overseas mail service.

This has plenty to be said in its favor. It is lighter than the usual material, strong enough and does not need to be returned. (International postal regulations state that a U.S. mail bag, for instance, cannot be used to bring British mail back to the U.S.—it must return empty.)

The U.S. post office began extensive trials of it this summer. At least two Canadian companies are reported to be working on similar designs.

Another U.S. idea: Paper sleeping bags. A lot of possibilities are seen for this invention. Tests carried out by U.S. Forestry Department revealed the bag was light, comfortable and retained its warmth as well as the conventional sleeping bag.

Especially useful for fire fighters and others dropped into the bush for a short time, the bag can be discarded after use.

Paper sheets for motels have also received serious consideration.

But the major outlet for wrapping paper today is actually the production of paper sacks and bags which account for 55% of the total wrapping paper used in Canada. Development of the multi-wall sack in recent years has given an important impetus to the industry.

Another use is in gummed paper, as used for sealing packages in shipping rooms, which accounts for about 3% of the total use; kraft mailing envelopes, 2%; and miscellaneous uses such as waxing, asphalting and waterproofing papers, 15%.

Made from Kraft Pulp

Next to newsprint, pulp consumption of wrapping papers is the highest in North America. They account for 20% of total paper production.

These wrapping papers are almost entirely made from kraft pulp. About 80% of Canadian production is paper made from unbleached kraft pulp. Nearly all the remaining 20% is made with kraft pulp together with some other type of pulp.

Kraft has won its place in wrapping paper production because of its great strength. In fact, it is the strongest paper known. While it is neither cheap nor easy to produce, it can be made from such woods as jackpine which are not especially well suited to the production of other pulp.

The story of wrapping paper in Canada dates back to the early 1800s when the country's first paper mill, located in St. Andrews, N.B., was opened. The start of the industry as it is known today, however, is usually considered to date back about 100 years when the art of making kraft paper, developed in Sweden, was introduced to Canada.

The first kraft mill, located in the Eastern Townships of Quebec, was also the first kraft pulp producer in North America.

By 1912 Canadian production of kraft paper was about 5,000 tons a year and consumption 8,000 tons, the deficiency made up by imports. In the years that followed production rose steadily.

During World War I, out of necessity due to shortage of other wrapping and packaging materials, production rose quickly. It was sustained in the postwar period.

In the years that followed the wrapping paper industry, in common with the whole of North American industry, reflected the peaks and valleys of boom and depression. By 1930-34 production averaged under 75,000 tons a year. In the second half of the decade, due largely to growing acceptance of the multi-wall sack and other applications, production increased once more with the annual average reaching 97,000 tons towards the end of the 1930s.

Output Upswing

During World War II, with the shortages of jute and diversion of cotton to more important uses, wrapping papers once again shot high in the public demand.

Wartime necessities brought on quick jumps in the science of coating and impregnating the kraft going into the manufacture of multi-wall paper sacks, so as to make them serviceable for the packaging of a wide variety of products.

As a result the tonnage of kraft converted into multi-wall sacks had increased sharply by the end of the war, and these gains were largely retained by the industry.

Outbreak of fighting in Korea again brought about an upswing in wrapping paper production which in 1951 had climbed to a record 257,000 tons.

In 1952, however, production slid again with only 223,000 tons being produced. Since then wrapping papers have made a slow but steady comeback.

From time to time it has been suggested the Canadian industry could be more adventurous in developing wrapping paper techniques.

The home industry gets favorable tariff deal—a 10% on exports to the U.S. versus 22% on imports from the U.S. But even this cannot compensate for U.S. mass production and big, rich home market.

Not until the Canadian market is larger will the full force of the Canadian wrapping paper industry's potential be felt.

How Sloan Report Affects B.C.

CONTINUED FROM P. 77

terial. It is only through such a procedure that the already highly efficient new mills will be able to capitalize on all the natural advantages that are theirs and maintain their position in the markets of the world.

Market and Men

Last year there were more than 8,500 men and women employed in the industry in B.C., either in mills or in administration. An additional 3,000 were engaged directly by the industry in supplying pulpwood to the mills.

The payroll for those directly employed in 1956 was $52.2 million, and the total value of production continued its upward advance to $224.7 million, representing an output of 1.4 million tons.

The U.S. market represented $117.3 million or 52% of the whole value of mill sales, and offshore shipments representing a value of $44.4 million accounted for 20% of the total business, the Canadian market accounting for $62.6 million, or 28%. The allocations last year were about the same as in other recent years.

Current valuation of the mills in British Columbia is put at $424 million, with an additional $76 million being invested this year. This means that the capital investment for each mill employee is about $50,000.

The industry pays over $26 million in direct taxes annually, and transportation costs during the past year totaled nearly $18 million, with every prospect of their being higher this year because of rate increases.

It is estimated that nearly 30% of all the pulp and paper manufactured in B.C. is derived from chips produced from sawmill waste, and this not only creates an estimated $45 million from mill residue but greatly reduces the amount of standing timber that needs to be harvested to maintain production of the finished pulp or paper. Nearly all the kraft paper manufactured in British Columbia is made from sawmill "waste" and salvaged logs, and kraft pulp contributes nearly 35% of the total pulp production in the province, most of the balance being groundwood pulp for the newsprint mills.

Here are some figures showing the growth of the industry in B.C. in the past six years:

	1956	1950
	tons	
Newsprint	593,462	403,000
Sulphite pulp	119,077	50,000
Alpha and Dissolving pulp	179,262	115,000
Kraft pulp — bleached	266,461	115,000
Kraft pulp — unbleached	163,394	115,000
Wrapping paper	48,130	74,000
Tissue and special grades	42,141	74,000
Building paper, paperboard and felts	25,581	30,000
Box board	22,776	30,000
Groundwood for sale	5,238	none
Grand total	1,465,522	787,000

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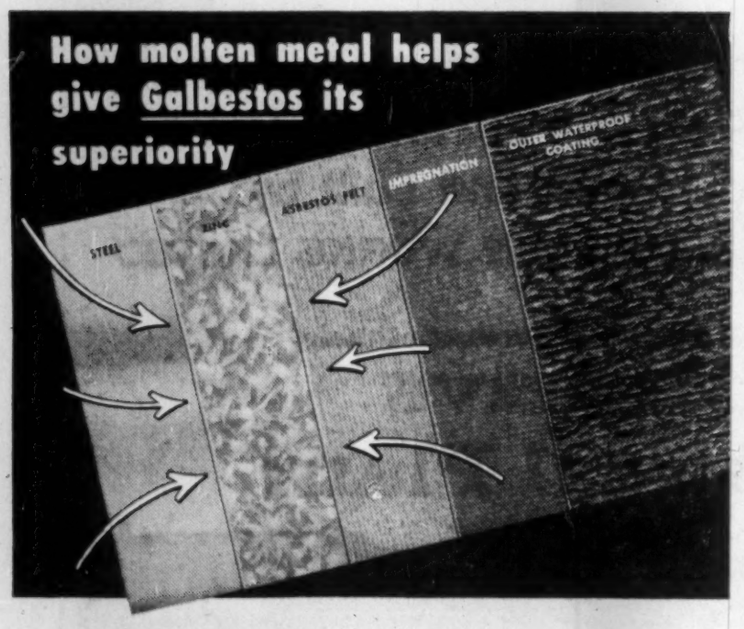

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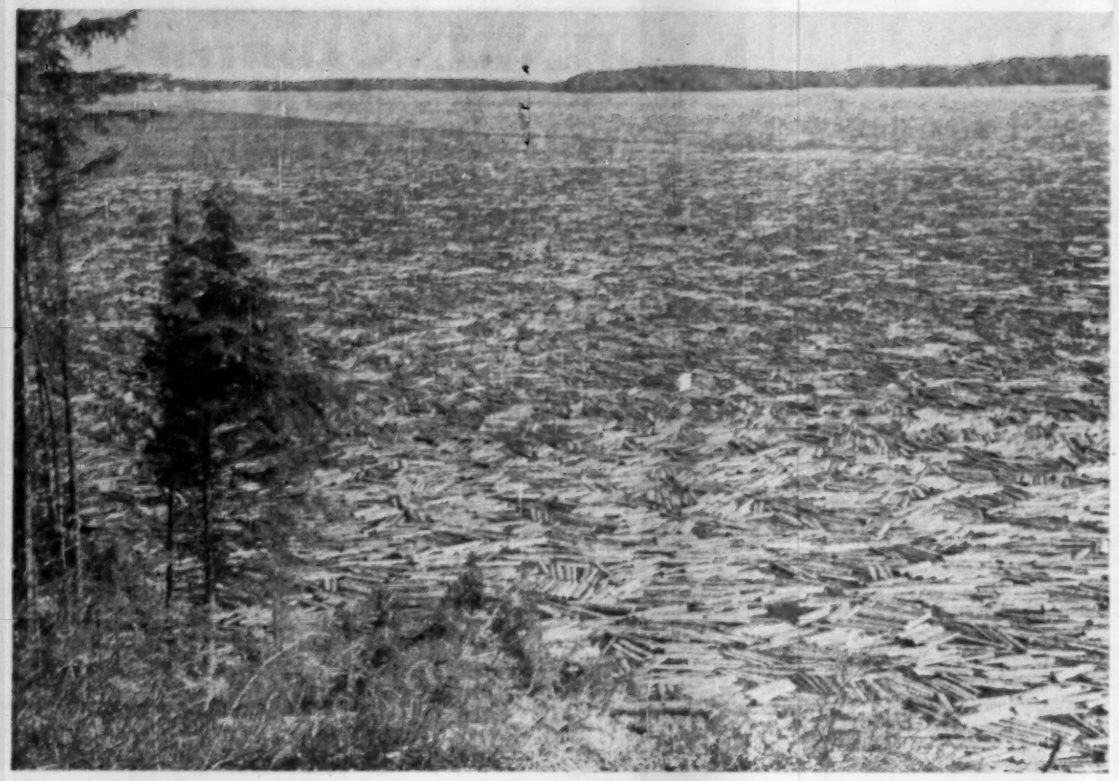

THIS IS PART of the annual wood cut which produces products worth $1.4 billion

Fine Paper Production Booms But Forward Bookings Slacken

Canada's fine paper mills should reach another record or near record level of production this year.

There has been a slowdown in the operating level of many mills compared to full-out operation last year, but the volume is still high by normal standards.

The slowdown is natural and perhaps inevitable. New capacity was bound to catch up with demand. The chief unknown involved was the time this would happen.

The answer was provided earlier this year and became apparent in a slowdown in forward booking. Still, the output has been high: 5.5% above last year for the first seven months.

However, compared to the buoyant levels last summer the pace is off significantly.

To the end of May, production was up 8.5% over the like period of the previous year. But in June (off 2.7%) and July (0.7%), output was down.

Prospects for the balance of the year are still taking shape. It is understood that inventories of paper distributions are generally at a low level. There has been some slackening off in orders because mills can now supply paper quickly.

The general feeling is that the recent level of output should be maintained until the year end, but guesses beyond that date are rare.

With an approximate 5% price increase effective this summer, value of output will be somewhat higher but rising costs are putting a further squeeze on earnings.

In recent weeks, Canadian fine paper producers found it necessary to curtail output to bring it in line with market demand. Although demand still continues high, production has gone ahead of demand because of improvements in processes, machinery and equipment, a temporary situation.

Cost Hike Hits

The most recent cost increase has been a further freight rate hike of about 7% which brought the total freight increase since December to 14%. To combat this problem, producers are trying to reduce rail charges by other means. Drying the wood before shipment is one example. Mills are also trying to utilize hardwoods in neighboring areas rather than having to face the longer haul for some of their pulpwood supply.

Wood costs remain high — about $35 to $38 per cord delivered at the mill. Two cords of wood will produce about the equivalent of one ton chemical pulp, and, although there are variations, about the same quantity of fine paper.

With reduced demand, mills have had to curtail production and in the months ahead operations are expected to continue below capacity.

Canadian fine-paper mills can't compete in U.S. markets because of the existing tariffs. Few other markets are any more receptive, so exports are small and of little help in taking up slack in domestic markets.

It is estimated the average cost of production, with the exception of a few grades, is 8% to 10% higher in Canada than the U.S. The Canadian tariff on imports is 22½% but for some grades full advantage of this tariff has not been taken by Canada.

In some areas, however, full advantage has been taken of this tariff wall. For example, for No. 2 rag bond produced in the U.S., there has been an extremely competitive market. As a result, the price related with other grades has been considered low. Without the tariff, it could no doubt be shipped here and take business from Canadian suppliers.

In the fine-paper industry, the general development has taken the form of refinements in existing grades although in recent times relatively few new ones have been introduced. There have also been increases in the uses of existing grades that have been available for a number of years. As an example of the latter, automatic card sorting devices have required an increasing variety and volume of card stock.

One of the problems that all producers face is that Canadian consumption is small compared to the U.S. because of the much larger U.S. population, and also because there is greater per capita usage of paper in that country.

Wide Demand

Canadian demand is wide and there are many grades, weight, color, finishes, etc. Unfortunately, demand for each is relatively small and as a result mass output is impractical. Production requires frequent and costly process changes, on high-cost equipment operated by highly paid, skilled employees.

With the six-day week compared with seven days in the U.S., overhead is higher. Canadian consumption of fine papers is less than 1/10 of U.S. consumption but the range of different products required to serve this market is almost as great as the range of U.S. demand. As a result, Canadian fine-paper producers have had to exercise considerable ingenuity to produce this wide range and relatively small volume per product with a necessarily limited number of paper machines.

Canada's 15 mills making fine paper and its three coating mills are with one exception located within range of the two largest centres of population, Montreal and Toronto, which account for the majority of Canada's consumption of fine papers.

The economics of fine-paper making differ from other sectors of the pulp and paper industry. For one thing, cost of wood used in fine-paper manufacture represents a lower percentage of the total manufacturing cost than it does in production of pulp or of newsprint.

Output per ton of fine paper involves much greater capital outlay than the production of a ton of other grades. The fine-paper mills, too, employ much more labor per ton of production than other branches of the industry.

Thus both fixed charges and processing costs are substantially higher and represent a much greater proportion of total manufacturing costs. That's why mills are located near major markets rather than close to the source of raw materials as in newsprint and pulp industries.

Long-term Optimism

Despite the extremely competitive current market, further evidence of the long-term optimism in the industry was provided this year when **E. B. Eddy Co.** announced a $6-million expansion program which will result in new facilities to replace less efficient installations and result in greater

(Continued on page 80)

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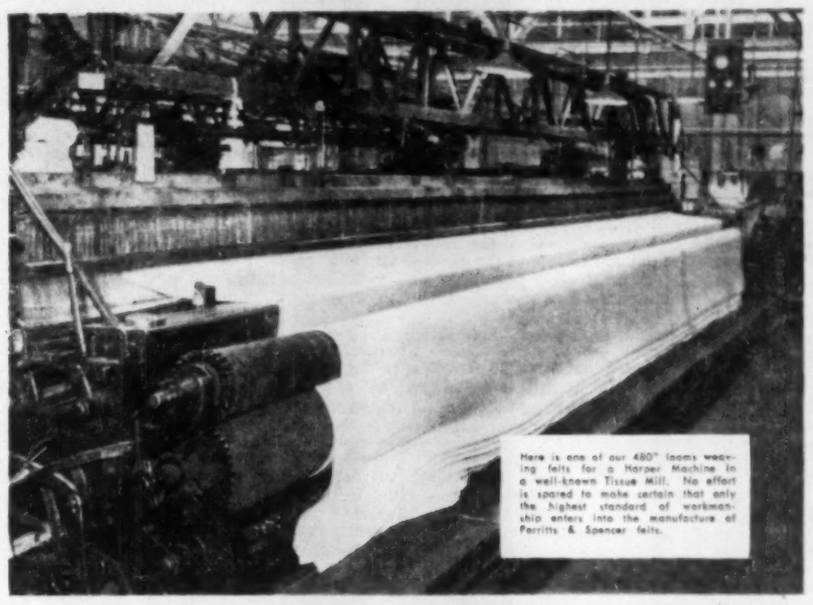

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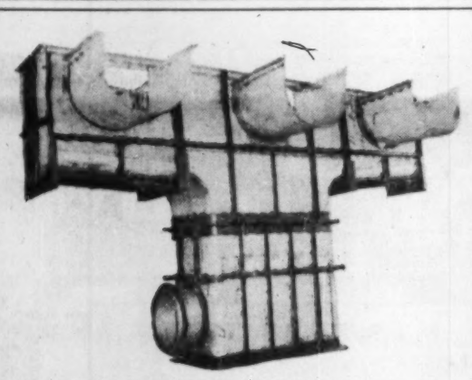

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Peering into the crystal ball and looking at future possible expansion and diversification of the pulp and paper industry provides all the excitement of a Buck Rogers journey into outer space.

Based on well-established trends in technology and science, knowledge already available in laboratories suggests some radical changes in the industry of tomorrow. This knowledge has only to be applied at a larger scale under favorable economic conditions to bring it to reality.

Here are some of the possibilities, as some industry scientists see them:

Across Canada will be many small plants, smack in the centre of the bush at the sources of wood supply. Small packaged atomic reactors will supply power for process steam and other purposes and the plants will be of rather simple design.

Some plants will be semi-portable so that they can be moved from time to time to fit in with forest management programs.

The capital plant and operating costs will be so low that the smallest unit which can be operated economically will be in the range of tens of tons rather than hundreds.

For the woods and manufacturing workers, these mills will not be surrounded by permanent communities. Rather the workers in some cases may live in stable communities many miles away.

Each day, they will board jet-propelled types of air vehicles to travel perhaps hundreds of miles from their homes to their jobs in less time than is now taken by workers who live in one part of a large city and work in another.

The costs won't be any greater because atomic power will be cheap, that is, compared to the present systems involving permanent camps, handling and re-handling of wood across long distances from the forests to the mills, feeding problems and labor turnover.

Cut Whole Trees

In forests, near these mills, large but maneuvrable machines will take down the whole trees, move them through a section where branches are removed, then load the logs in conveyor belts or cableways for passage to the nearby mill. The wood of the branches will be subdivided into small units and blown with the leaves or needles in a plastic pipeline to the mill where it will go into retorts for the extraction of chemicals.

In some forest areas, all the trees, regardless of species will be cut and treated in the same fashion. At other places, certain species may be segregated for special purposes.

In all cases where there are healthy and otherwise desirable individual trees, clusters of them will be left to re-seed yearly. Nutrient materials will be sprayed on cut-over forests and on growing forests by helicopter or aircraft, just as the present-day farmer feeds his crops by replenishing what they have removed during their growth.

In some cases, mills in the bush will be connected to centres for paper processing in some accessible locations by a network of plastic, insulated pipelines and the pulp transferred with compressed air or in water slurries.

In other cases the pulp mill will lead directly into a small paper mill, also located in the middle of the bush and of small, semiportable design. It will convert the pulp to paper at speeds several times those achieved today, but by completely different methods.

The Fourdrinier machine with its tremendous tonnages of whirling metal to carry a few pounds of product at a time will be on the way out. Transportation of the finished paper from such plants to centres of distribution or conversion may be by cableways in some cases; by flotation in large rubber or plastic containers down waterways; or by transfer to conventional carriers in cases where highways or railway lines are close at hand.

Such a distribution from small pulp mills will not involve a costly road system. Production, supply and even the shipment of some products and particularly some byproducts and the transport of personnel will all be by air.

The new mills will not follow any single, conventional pattern. Instead there will be a wide diversity, appropriate to the decidedly varying local conditions. Distribution of the mills across what are now considered inaccessible forests will greatly multiply the wood available for paper and pulp processing.

At the pulp mill, logs will be placed against a machine which reduces them at high speed to thin wafers which are immediately passed through a chemical spray on into a "cooking" device where they are converted to pulp in five minutes or less, perhaps by a completely different method of heating, such as high frequency.

The whole process from wood to pulp will be achieved in what is essentially a length of pipe on a continuous basis. The chemical solvent—perhaps not water—and the dissolved lignin will be removed in a simple extraction which occurs in the next zone of the pipe. As the pulp proceeds to the end of the pipe, it will be given a bleaching treatment much less drastic than those required today.

As it leaves the end of the pipe, the pulp will go either directly to the paper-making operation or into a pipeline for shipment to a plant at some distance.

Chemical Processes

Alongside the pulping unit there will be an array of continuous equipment which will resemble the catalytic refineries of the present-day petroleum industry.

The solvent with its dissolved lignin and other wood constituents will be processed through this equipment to produce a wide variety of chemicals which are packaged and shipped to distribution centres by the most appropriate method in each case.

The values from these byproduct materials will be far in excess of that of the cellulose pulp alone. In some cases, the byproduct liquors will be sent by pipeline to much more complex and larger processing plants at a distance and closer to the markets.

The high-speed continuous pulping, papermaking and byproduct operations will be largely controlled by automation. Personnel previously required for these operations will then be needed in other phases of the industry, byproduct manufacturing distribution and sales.

Trailer Pulp Mill

In some areas, such as the Maritime Provinces, the pulp mill will be contained on a large trailer truck which will go from one farmer's woodlot to another, or from one sawmill to another. It will process small quantities of material on the spot and drive away with the finished pulp.

An instrument which measures simultaneously the basic weight and the moisture content and integrates these readings instantaneously to give the moisture-free weight will be used to determine the purchase price of the wood.

In other words, wood measurement would be by weight rather than by volume.

Similar instruments will be in use wherever wood measurement is required at the mills.

It seems unlikely that the semiportable, small mill would characterize the pulp and paper industry of the west coast with its enormous trees and rugged slopes. It is more likely that the pattern of the industry in those areas will more closely resemble its present one with increased use of mechanized equipment in the forest and the larger but similar high-speed, continuous pulping, papermaking and byproduct equipment in the mills.

This is no idle dream.

It was outlined in a report prepared in connection with the pulp and paper industry brief to the Gordon Commission on Canada's Economic Prospects. And it is supported by no less a person than Dr. Lincoln R. Thiesmeyer, president of the Pulp and Paper Research Institute of Canada. He says it represents logical projections of trends already established in the research laboratories and the mills on this continent and elsewhere.

And all this may be much closer than most people think.

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Fine Paper Production Booms

CONTINUED FROM P. 79

operating efficiency and larger plant capacity.

A new machine designed for production of base stock for conversion into toilet tissue, serviettes and paper towels and with an initial capacity of about 18,000 tons will be installed. The machine is expected to be in operation by October, 1958. When it starts operating, three existing small machines will be shut down.

Rolland Paper Co. brought into operation this summer a new paper-making machine with an annual capacity of 18,000 tons, and will increase ultimate capacity of saleable products by over 54%.

Howard Smith Paper Mills Ltd. has sold its Crabtree Mills division to **Westminster Paper Co.**, New Westminster, effective Oct. 1.

Under terms of the deal, Westminster will continue to manufacture for Howard Smith the fine paper grades now produced at the division and also to manufacture and sell the Cashmere line and other products manufactured there.

Westminster has announced plans to add new production facilities as soon as possible.

Howard Smith's move is in line with its policy of integrating its paper making with its pulp-making divisions. It is expected company's over-all position will be strengthened by improvement of manufacturing facilities and other divisions with the funds received from the sale.

Meanwhile, the transaction brings a B.C. producer into the Eastern Canada manufacturing and sales market, reduces their freight rate costs for shipments to the east.

Over 500 Grades

The fine-paper section of the pulp and paper industry as defined by the Canadian Pulp & Paper Association includes book, writing and groundwood papers. There are more than 500 grades, ranging from half tone news, which contain only slightly less groundwood pulp than newsprint, through the chemical woodpulp grades such as book, envelope, tablet and coated papers to grades made wholly from new linen and cotton rags.

For the most part, fine papers are closely related to business and social activities and their use should continue to grow with population and standard of living. A large volume of fine papers fall into the field of business papers and tend to follow the level of general business activity which may be measured indirectly through disposable personal income.

There are practical factors within the fine-paper field, certain of which take into account relative costs and prices of the products involved. Rag content papers are generally regarded as top quality for many purposes including permanent records, and for business and social uses. It is generally expected that rag-content papers will continue to be produced at current levels but perhaps without significant further growth.

On the other hand, the chemical wood bond papers are expected to continue their upward growth trend. Reproduction papers may show an even more pronounced growth. Cover, text, and bristols are expected to maintain or better their relative increases of recent years. Thin papers, including those going into industrial uses, should hold the pattern of growth exhibited over the past few years.

Cigarette paper, as a special grade, is related closely to a one-use field where the growth factor has been relatively constant and is expected to remain so.

Groundwood papers represent about 27% of total production of the book, writing and groundwood papers, and include papers which contain more than 50% groundwood pulp. Book papers contain a higher percentage of chemical pulp and account for one third of total output.

Finer writing papers, such as bonds and ledgers, make up another third and miscellaneous grades cover the remaining 6%.

In any assessment of the Canadian industry, it must be emphasized its main market is domestic. Tariffs are raised against entry of these papers into other countries and in turn Canadian tariffs discourage their entry into Canada.

Output Boosted

Canadian production has increased sharply in recent years. In 1950, production amounted to 176,384 tons increasing by 40% to 248,000 tons last year. The annual average increase amounted to 12,000 tons. The main expansion in the industry has been during the post-war period.

In only 1949 and 1952 were there minor production setbacks. In other years, there has been a steady increase to the present level.

Its future growth will probably closely follow the needs of industry, education and culture which it serves.

In a report to the Gordon Commission last year, the CPPA estimated that total production required in 1960 in Canada would be 325,000 tons of which 49,000 tons would be exported and 13,000 tons would be imported into this country. It estimated Canadian supply requirements would be 289,000 tons which would increase to 345,000 tons by 1965 and 564,000 tons in 1980.

Estimates were based on a straight-line projection of per capita consumptions in the years 1920-1954. Projected per capita figure in each instance was multiplied by estimate of population for the appropriate year.

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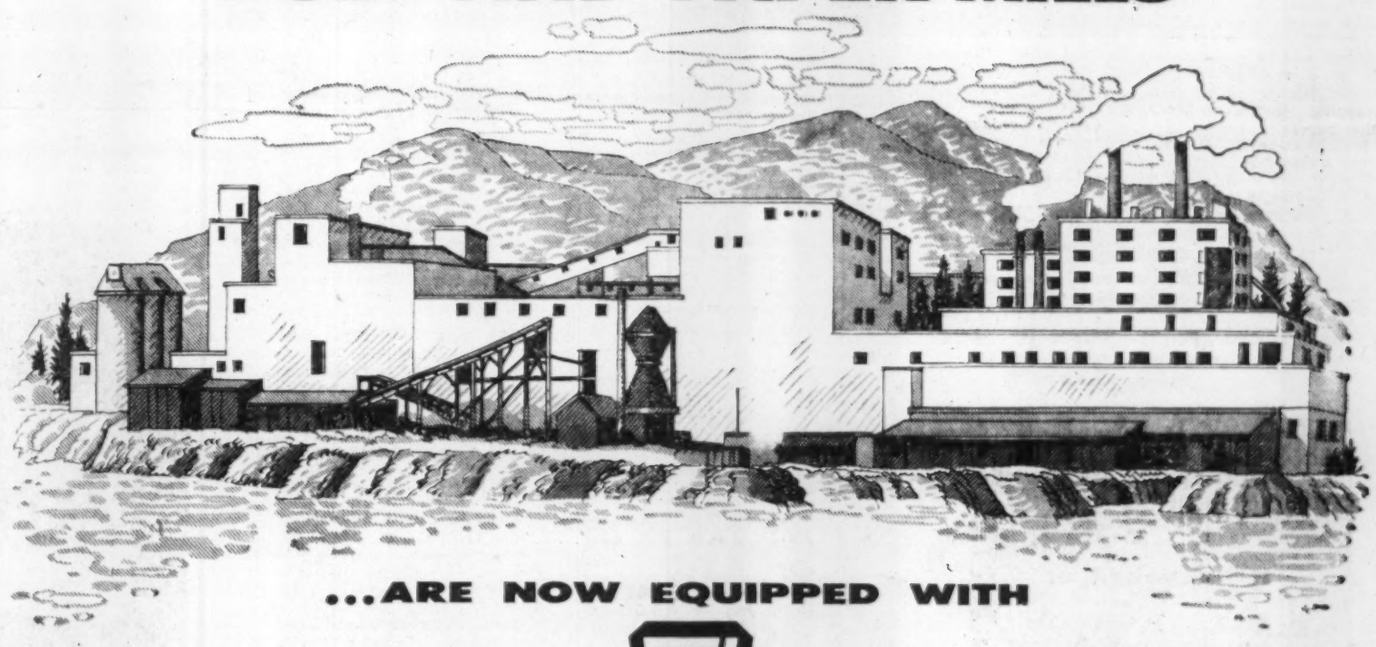

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Paperboard Makes Big Impact Third Biggest Production Item

By ERIC RICHTER

Cost, appearance and promotion conscious, industry is looking more and more toward paper — capable of so many variations—as the medium in which to package and ship its output.

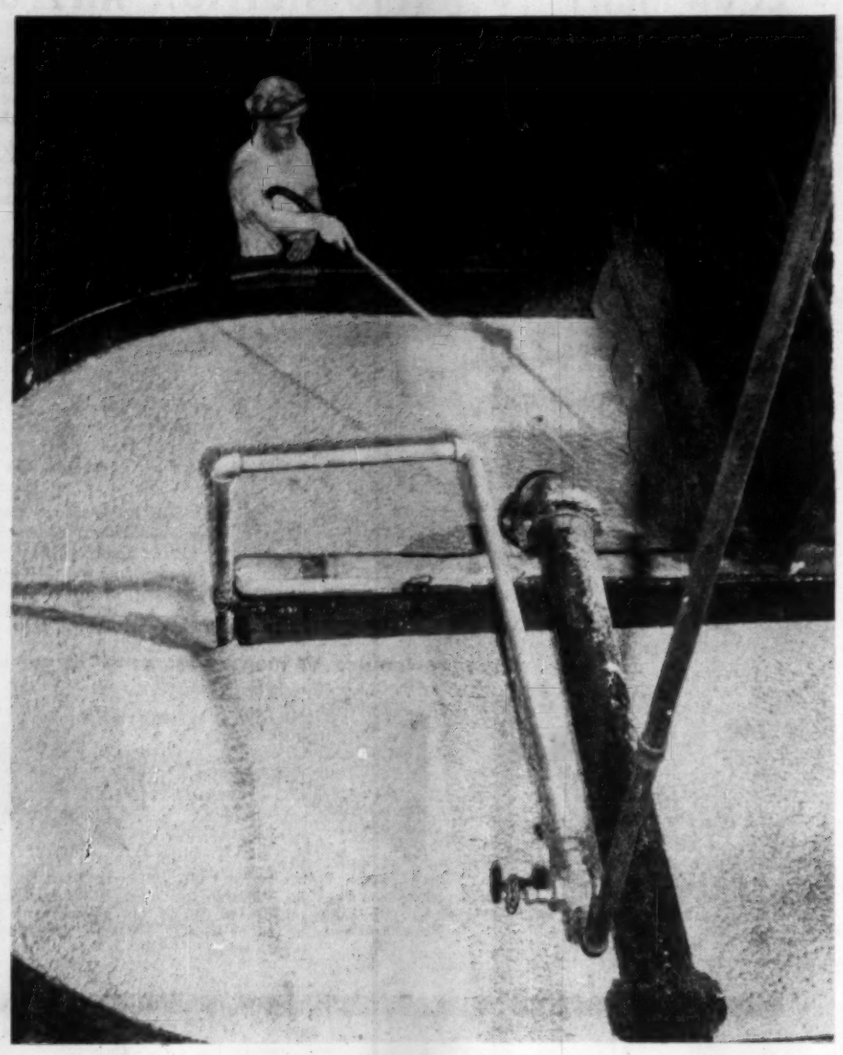
The result has been a spectacular increase in the demand for paperboard, and a large expansion for Canadian mills that engage in this segment of the pulp and paper industry.

More paper and paperboard is used today in the manufacture of containers, it is estimated, than tin, steel, glass, plastic and all other packaging materials combined. Packaging alone absorbs more than half of the paper and paperboard used in North America.

Developments in paperboard, in fact, have revolutionized both merchandising and distribution methods. "Unitized" packaging, made possible by the attractive, inexpensive folding box, has been the basis for the "self-service" and supermarket merchandising operation.

Development of special food board has helped the frozen food industry along the road to major importance. The cardboard carton is challenging the supremacy of the glass milk bottle in the dairy industry, an area in which the latter ruled supreme until only a few years ago.

In the shipping field, the corrugated carton is now the familiar medium of packaging just about everything from tinned soup to nuts and bolts. Expendable or "throw-away" shipping pallets complete with posts are now being made from corrugated materials, and a wide variety of liquids can be shipped in corrugated cartons by the simple expedient of inserting a plastic liner or "bladder" inside the carton itself.



PULPWOOD is cut up, pressed and crushed, then made into a wet mash. Above, a worker beats the pulp in the last process before it goes to the presses to become paper.

Third-biggest Item

These factors, which are both revolutionary and evolutionary in nature, have over the past decade boosted paperboard to the third most important item, from a production standpoint, in Canada's pulp and paper industry.

Newsprint production accounts for 60% of total tonnage produced for sale by the mills; pulp for sale 23%, paperboard 8%, while the remaining 9% is divided among, fine, tissue, wrapping, construction and all other papers.

In 1956 Canada's mills produced a record 989,309 tons of container board, liners, container chipboard, corrugating board, boxboard for folding carton and setup boxes and other uses—the main section into which paperboard production is divided—almost 15% more than 861,271 tons produced in 1955.

A measure of the industry's growth: last year's production at almost the one-million-ton mark was 51% greater than the 655,661 tons produced 10 years earlier and 139% greater than the 413,687 tons produced in 1939—the last prewar year.

Estimates prepared for the Gordon Commission by the Canadian Pulp & Paper Association indicate that by 1980 Canadian production of paperboard will be in the vicinity of 2,180,000 tons or an increase of 120% over the 1956 level. The same projection places 1960 production at 1,035,000 tons or 4.6% more than last year, while the estimate for 1970 is 1,525,000 tons or 54% greater than 1956 production.

Indications so far this year are that not all segments of the paperboard industry will be able to maintain the record production level established in 1956. While container board production (which accounts for just over half of all paperboard produced) so far in 1957 is running at a par or even fractionally ahead of the corresponding period last year, there has been some falling-off in output of the boxboard grades.

Best production estimates for the full year 1957 now available indicate that container board production will likely be much the same as the 502,705 tons produced last year, while the box board grades will be off 20,000 to 25,000 tons from 486,064 tons turned out in 1956.

On the basis of these estimates, total paperboard production this year would be in the vicinity of 967,000 tons or a decline of just over 2% from last year's level.

The decline is generally attributed in the industry to an over-all easing in the level of the nation's economy. Paperboard sales, industry officials note, parallel closely the ups and down of general business conditions and per capita consumption of paperboard correlates closely with per capita consumer income.

Another theory being advanced in some quarters is that much of the paperboard industry's production is subject to cycles which are of two year's duration on the upturn. In 1956 production increased almost 15% over 1955, and 1955 production, in turn, was up 3% over the previous year. However, 1954 production was down 0.7% from 1953, which, according to the theory, would make 1957 the "off year."

What It is

Paperboard itself comprises a felted sheet of wood fibres varying in thickness from about 7/1000ths. of an inch to 60/1000ths. of an inch. While some is made on fourdrinier machines, a major part is produced on cylinder machines.

This latter operation consists in combining a number of layers of felted pulp formed on the wire mesh of a series of cylinder molds which revolve in separate vats containing mixtures of pulp and water.

A wool felt traveling over the mold picks up each layer in turn and the combined layers are then passed through presses and over driers in the same way as on a fourdrinier machine.

Paperboard so produced can comprise identical layers or alternatively layers made from different kinds of pulp or a combination of pulp and waste paper.

Two Classifications

Wood pulp is the chief raw material of paperboard, although some grades are made in whole or in part from straw pulp or from repulped waste paper. Main uses are in the field of packaging. Some paperboard is used in manufacture of gypsum wallboard and other building boards.

Paperboard itself is divided into two main classifications — container boards and boxboards — and each of these in turn is further subdivided.

Container board, as the name implies, is used chiefly in manufacture of corrugated cartons and shipping containers, and production falls into three main categories: liners, corrugating board and container chipboard.

Liner board, manufactured in two forms—kraft liner and jute liner—is a strong and firm board which forms the outer or smoother layer of the corrugated carton. Corrugating board, on the other hand, is the fluted, inner layer, that is sandwiched in between the liner board!

Container chipboard — produced entirely from waste paper—is the substance lami-

(Continued on page 82)

mountain storm...

The mountain storm—terrifying in its destructive potential—is one of the many hazards faced by maintenance teams manning the 150 miles of rugged British Columbia terrain followed by B.C. Electric's mighty Bridge River-Vancouver transmission line. On such occasions the chain of radiotelephone stations established by Spilsbury & Tindall at key points along the route really comes into its own.

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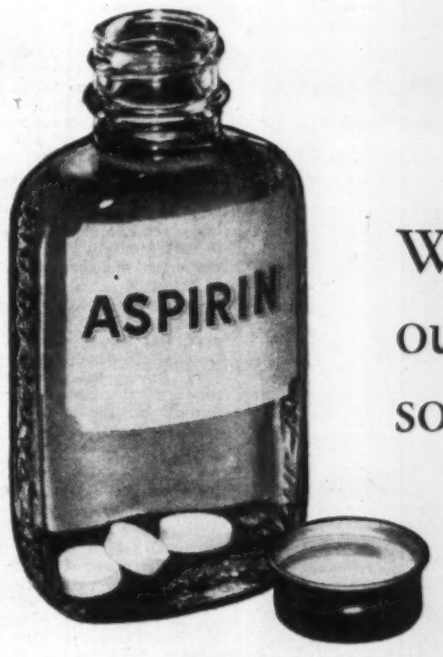

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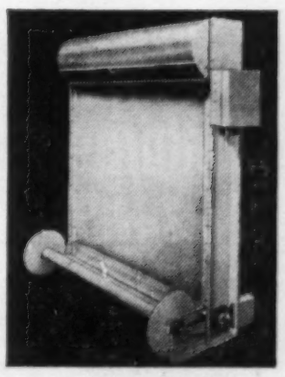

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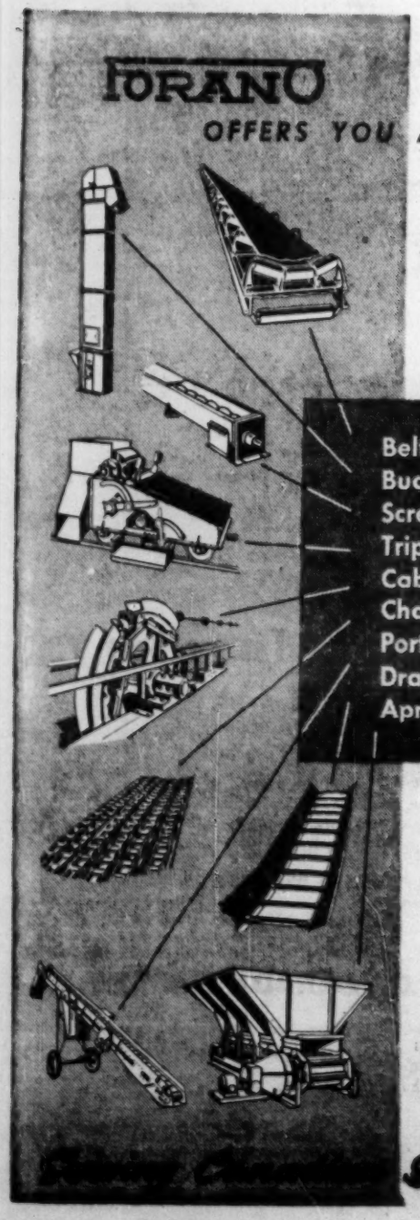

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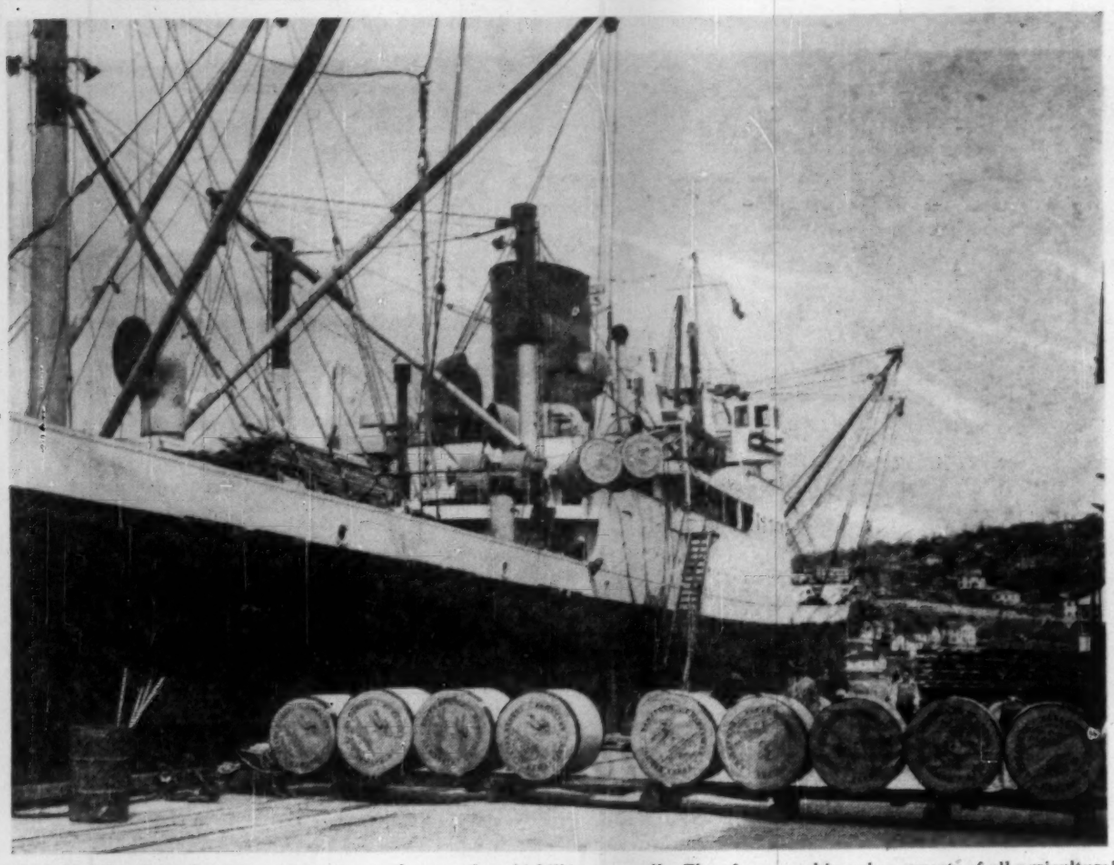

CANADA'S pulp and paper exports are worth more than $1 billion annually. They far exceed in value exports of all agricultural and vegetable products combined, including grain, flour and liquor.

Paperboard, a Best Seller

CONTINUED FROM P. 34

nated between "liners" to produce a solid fibreboard, also used in manufacture of shipping cases. This type of case is quite different from corrugated cases.

Boxboard—the raw material for thousands of packages ranging from the cigarette box through the soap flake carton to the shoe box—is also divided into three main categories.

Folding boxboard, as the name implies, is a type of paperboard amenable to being folded and is used in the manufacture of packages or cartons which are shipped flat to the user who in turn forms or "sets them up" on his own packaging machinery prior to filling or using them.

Setup boxboard, being rigid and nonfolding, is used in manufacture of packages or containers where rigidity is required. Unlike the folding cartons, set-up boxes are fully formed once manufactured and are shipped to the user in this finished state. They are used for packaging candy, shoes, pharmaceuticals, papeteries and a host of other products where rigidity in the container is essential.

The "all other" category in the boxboard section includes paperboard used for a wide variety of purposes including the outer wrapping of rolls of newsprint paper, milk bottle caps, pie plates, and in manufacture into building board and numerous other nonpackaging uses.

Significant Shift

During the past decade there has been significant shift within the paperboard industry itself. In 1946, for example, boxboards accounted for some 57% of all paperboard production leaving the balance of 43% to the container boards.

By 1957, however, this balance had been reversed with boxboards retaining only 49.2% of total production and container boards moving ahead to 50.8%.

There has been a keen rivalry for markets and uses within the boxboard and container board sections of the industry. While container chipboard shipping case was in itself the forerunner of the corrugated carton, the latter has made vast inroads on the container chipboard market, with the result that today chipboard holds only a very slim proportion of the over-all container board market. Indications are that this trend is continuing.

In 1946 container chipboard production represented only 2.4% of all container board produced, and by last year this proportion had further shrunk to only 1.5%. In terms of actual production, it should be noted, between 1946 and 1956 container chipboard output rose from 6,480 tons to 7,470 tons, an increase of 15.2% This however, must be contrasted with increases of 98.9% and 57.3% for liners and corrugating board, respectively, during the same period.

Aside from the consideration of costs, chief reason for the decline is that the corrugated carton has "spring" or "give" which helps cushion its contents and thus lessens injury due to bumps or drops.

Container chipboard packing cases and cartons are still used extensively in shipping applications where the freight charges are measured in terms of volume as well as by weight or commodity class. Reason is that chipboard, being considerably "slimmer" than corrugating board, consumes less space and hence results in a lower freight cost.

Container boards as a class have been cutting severely into the market for shipping crates and boxes once held largely by wood and wood reinforced with wire.

Among more recent innovations in the packing industry has been the combination of a wood frame with container board paneling to produce a crate which exhibits many of the better qualities of both the all-wood and all-container board shipping case.

In the boxboard section of the industry the set-up box has been feeling the competitive squeeze from the folding carton. The reason is that the set-up box costs considerably more to produce than does a folding carton and requires vastly more storage space once made. In 1946, for example, production of boxboard for set-up boxes represented 13.2% of all boxboard output. By 1956 this proportion had shrunk to 9.4%. In terms of actual production, the 45,828 tons of boxboard for set-up boxes produced last year, was actually down 1.6% from 46,556 tons produced in 1946. During the same period production of boxboards for folding cartons increased 42.3%.

Contraction of the market for set-up boxes is expected to continue with this type of box retaining only the uses where rigidity is required or where production runs are so small that the expense of tooling and setting up for manufacture of folding cartons is not warranted. In addition, the set-up box in recent years has also been subject to mounting competition from the rigid plastics.

Folding cartons, too, are feeling increasing competition from the corrugated carton in many applications. Plastics are also a factor in this market now.

In this highly competitive situation, paperboard mills are constantly on the lookout for new uses for their production. In addition, concentrated effort is being devoted to such matters as quality, special properties, appearance and cost.

Tailor-Made Product

From a production standpoint, paperboards generally are capable of practically infinite, if sometimes fine variations, with the result that mills are producing what is practically a tailor-made product for each customer. In Canada where requirements of individual customers are small and production runs far shorter, this places the mills at a cost disadvantage vis-à-vis their U. S. confreres.

At present particular emphasis, as far as many types of paperboard are concerned, is being placed on better color and printing qualities. This is occasioned largely by growing stress in both consumer packaging and shipping applications, on appearance and advertising.

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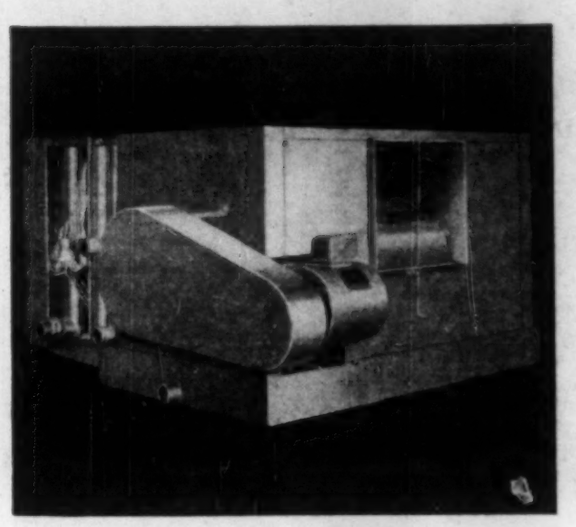

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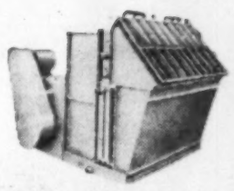

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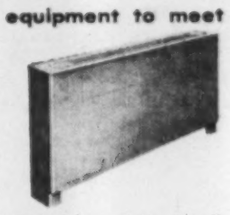

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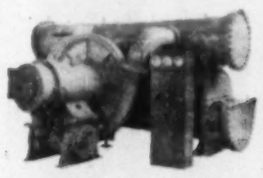

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Company's sulphite mill is at Merritton, Ont. At Georgetown, Ont., it has a plant producing coated stocks such as book, litho, label, tag, stock, board, and other specialties.

A wholly owned subsidiary, **Don Valley Paper Co.**, manufactures blotting, covers, bristle, tag stocks and many specialties.

In 1956 company completed a major modification program designed to increase capacity. This included modification of the cylinder board machine at the Lincoln Division, new vertically stacked dryers as well as additional pulping, screening calendar and cutting equipment.

In order to accommodate the vertically stacked dryers a penthouse addition had to be added to the mill which in turn involved major alterations to the machine room.

Individual statistics on annual capacity of the plants are no longer being released. Financial and operating statistics are consolidated with those of Howard Smith Paper Mills, in this section.

Eddy Paper

Eddy Paper Co. is an investment and holding company whose wholly owned subsidiary, the **E. B. Eddy Co.**, operates an integrated pulp and paper organization manufacturing and distributing a wide range of paper products.

Eddy Paper has funded debt of $21,375,000. There were 200,000 Class A $1 cumulative convertible non-callable shares and 200,000 npv common shares at Dec. 31, 1956. All the common shares outstanding were owned by **J. R. Booth Ltd.**

Following declaration of initial quarterly dividend of 37½c to common shareholders as of record Feb. 22, 1957, and May 16, 1957, more than 61,215 Class A shares were converted into common stock on a share for share basis.

Over 88% of the capital stock of **Sidney Roofing & Paper Co.**, including all Class B (voting shares), are owned by Eddy Paper Co. Sidney Roofing owns and operates a Victoria plant said to be the largest west of Toronto for the manufacture of asphalt roofing and allied plants. Re-location of this plant on a 75-acre site in Burnaby, B.C., has commenced.

Company's wholly owned subsidiary, **National Paper Box Ltd.**, owns and operates at Vancouver the largest and most modern plant west of Winnipeg for manufacture of folding and rigid paper boxes. In mid-1956 it acquired **Bulman Bros. B.C. Lithographing & Printing Ltd.**, the oldest printing establishment in Vancouver. **Bishop Asphalt Papers Ltd.**, another subsidiary of the company, manufactures and markets roofing and building materials in Eastern Canada.

Consolidated net profit of Eddy Paper Co. for 1956 was $1,817,062 against $1,538,917 in 1955.

E. B. Eddy Co.

The **E. B. Eddy Co.** is an operating subsidiary of **Eddy Paper Co.** Company sells most of its newsprint output under long-term contracts.

Other products are distributed in Canada through the company's own sales organization or in the U. S. and overseas. These include fine papers, household paper products, and paperboard.

It owns plants on the Ottawa River at Ottawa, Ont., and Hull, Que., with a combined rate of 155,000 tons per annum of finished products. It owns three hydro-electric plants on the Ottawa River at Chaudiere Falls which supply about 65% of company's power requirements. Balance is supplied by **Gatineau Power Co.**

Timber limits are on leases and licences to more than 5,800 sq. miles of which about 4,000 were acquired from **J. R. Booth Ltd.** These provide an estimated potential yield of 160,000 cords annually. Timber reserves are conserved through purchase of about 50,000 cords annually of private land woods. Annual consumption at present is about 200,000 cords. Most of the timber resources are located in the Gatineau and Ottawa River watersheds, permitting use of these rivers for driving the logs to the mills.

Consolidated net profit of parent company for 1956 was 16% higher at $1,817,062 ($1,538,917). Statement included earnings and assets of **Sidney Roofing & Paper Co.**, a partly owned subsidiary and its subsidiaries.

THE PULP AND PAPER INDUSTRY helps directly to provide a livelihood for one million Canadians. Prevention of damage to our forests is of paramount importance. Here, forest protection officer of the Dryden Paper Company explains fire prevention rules to a group of young Canadians.

Capital expenditures for all companies totaled $5,884,111 in 1956 — $2,817,425 by the Sidney group and $3,066,686 by E. B. Eddy. A further outlay of some $8.5 million is planned this year. Of this amount Sidney Roofing proposes to spend a further $4,550,000 on its Burnaby project.

E. B. Eddy program for 1957-58 is estimated to amount to $9.4 million of which $3.7 million is slated for expenditure in 1957 on the following projects:

—New paper machine which is scheduled to commence operations in 1958.

—Additional pulp facilities related to requirements of the new machine.

—New boiler to meet steam requirements of the new machine and replacing existing obsolete equipment.

—Speed-up of No. 3 paper machine which was installed in 1954.

—Construction of additional warehousing facilities to improve customer service.

The new paper machine is to increase capacity for manufacture of towelling and certain tissue grades to meet the demand of the growing market for these products. When completed, the new machine will permit a reallocation of production of modern, efficient machines and discontinuance of operations of three less efficient units.

Fraser Cos.

Fraser Paper Ltd., wholly owned subsidiary of **Fraser Cos.**, operates paper mills at Madawaska, Maine, producing chemical and groundwood pulp specialty papers sold chiefly in the U. S. market.

Daily capacity of these mills is about 555 tons consisting of 370 tons of chemical pulp papers and 185 tons of groundwood specialty papers.

Consolidated net profit of Fraser Cos. in 1956 was $6,705,642 ($5,710,785). In the first six months of this year, consolidated net profit totaled $2,542,394 ($3,388,077).

Demand for all products manufactured by the company during the second quarter declined and resulted in reduced operations of the mills. Total value of sales for the first six months of the year was about 3% less than for the same period of 1956.

Reduced volume of sales, higher costs for practically all manufacturing items, increased transportation charges and lower value of the U. S. dollar to Canadian dollar adversely affected net earnings for the period.

Consolidated net working capital at Dec. 31, 1956 increased to $16,471,023 from $15,183,385 at the end of 1955. Inventories were up to $15,313,637 ($11,216,136).

Capital expenditures in 1956 amounted to $5,011,088 for new additions and improvements to plant and equipment.

Howard Smith

Howard Smith Paper Mills Ltd. and its subsidiaries own and operate plants producing several types of conventional paper-making pulps and a wide range of papers, converted paper products, and certain chemicals.

It is the largest producer in Canada of fine and specialty papers and makes 500 grades of paper sold throughout the country and exported to Great Britain, South Africa, New Zealand, Australia, South America, and other countries.

Pulps and by-products produced comprise bleached sulphite, bleached soda and groundwood pulp; vanillin, a flavoring material, and tomlinite, a synthetic resin.

Through its subsidiaries the company also controls plants for the manufacture of groundwood pulp, bleached and unbleached kraft pulp and sulphite pulp, glassine, greaseproof, wrapping, toilet and coating papers, tags, paper bags, and specialties, paper and cloth base plastic laminates, and newsprint.

Combined annual capacity for sale (including **Donnacona Paper Co.**) is 320,000 tons of fine paper, kraft, specialties, newsprint, etc.; 60,000 tons of bleached soda pulp, 12,000 tons bleached and unbleached kraft pulp, 2,300 bleached groundwood, 100,000 lb. vanillin, 3,000 tons of decorative and industrial laminates, 100 million sq. ft. of building board, 350 million paper bags and 12 million flour sacks.

Total production of all kinds of pulp was 458,250 tons against 412,982 tons the previous year; total production of paper was 318,473 tons against 282,138 the previous year. The company owns plant at Cornwall, Ont. and Beauharnois, Que. It recently sold its Crabtree Mills, Que., to **Westminster Paper Co.**, of Vancouver, B.C.

The Cornwall and Beauharnois plants are owned directly by Howard Smith Paper Mills Ltd.; those of the Windsor Mills division are owned through **Canada Paper Co.**; those of the Merritton, Georgetown and Toronto (**Don Valley Paper Co.**) divisions are owned through **Alliance Paper Mills Ltd.** and the Ville la Salle, Montreal plant, is owned through the **Arborite Co.** Plants of Donnacona Paper Co. are at Donnacona, Que.

Consolidated net profit last year increased to $7,089,130 against $6,146,659 in 1955.

Demand for products of company and subsidiaries which was at a very high level during the first half of the year, weakened somewhat toward the year-end but it was possible to keep almost all units operating close to full time and little production time was lost.

Dominion Tar & Chemical

(Continued on page 84)

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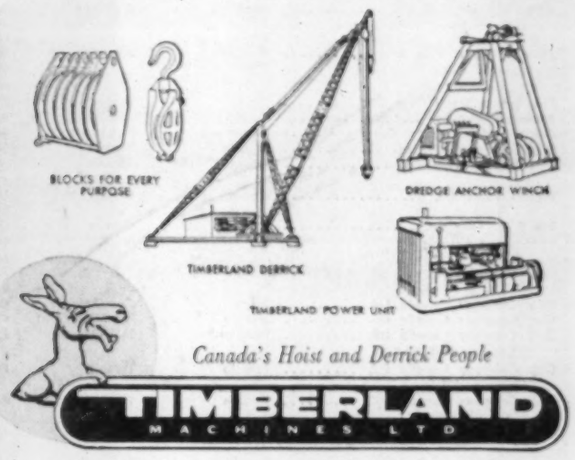

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CANADIAN INTERNATIONAL PAPER COMPANY

SUN LIFE BUILDING MONTREAL, QUE.

Canada's Pulp and Paper Mills

COMPANY	HEAD OFFICE	MILL	PRODUCTS
Ontario			
Abitibi Power & Paper Co.	Toronto	Fort William	Groundwood, unbleached sulphite (strong), unbleached sulphite (news grade), newsprint.
Abitibi Power & Paper Co.	Toronto	Smooth Rock Falls	Bleached sulphite (paper pulp).
Abitibi Power & Paper Co.	Toronto	Iroquois Falls	Groundwood, unbleached sulphite (news grade), newsprint, wrapping papers, paper boards.
Abitibi Power & Paper Co.	Toronto	Port Arthur	Groundwood, unbleached sulphite (news grade), newsprint.
Abitibi Power & Paper Co.	Toronto	Sault Ste. Marie	Groundwood, unbleached sulphite (news grade), chemical screenings, newsprint, groundwood printing and specialty papers.
Abitibi Power & Paper Co.	Toronto	Sturgeon Falls	Defibrated or exploded wood, semi-chemical pulp, paper boards, building boards.
Acme Paper Products Co.	Toronto	Toronto	Paper boards.
Alliance Paper Mills Ltd. (Lybster Mill)	Merritton	Merritton	Bleached sulphite (paper pulp), unbleached sulphite (strong), chemical screenings, book and fine papers.
Alliance Paper Mills Ltd. (Lincoln Mill)	Merritton	Merritton	Miscellaneous fine papers, tissue paper other than sanitary, special industrial papers, wrapping papers, paper boards.
The Beaver Wood Fibre Co.	Thorold	Thorold	Groundwood, newsprint, paper boards.
Brantford Roofing Co.	Brantford	Thorold	Building papers.
Canadian International Paper Co.	Montreal	Hawkesbury	Bleached sulphite (dissolving).
Dominion Cellulose Ltd.	Toronto	Toronto	Sanitary papers.
Don Valley Paper Co.	Toronto	Toronto	Miscellaneous fine papers, special industrial papers, paper boards.
Dryden Paper Co.	Dryden	Dryden	Unbleached kraft pulp, wrapping papers, building papers, paper boards.
The E. B. Eddy Co.	Hull	Ottawa	Groundwood, mechanical screenings, groundwood printing and specialty papers, book and fine papers, miscellaneous fine papers, tissue, sanitary, special industrial and wrapping papers, paper boards.
Gair Company Canada Ltd.	Toronto	Campbellford	Groundwood.
Gair Company Canada Ltd.	Toronto	Frankford	Did not operate in 1955.
Gair Company Canada Ltd. (Dominion Mill Div.)	Toronto	Toronto	Paper boards.
Gair Company Canada Ltd. (Toronto Mill Div.)	Toronto	Toronto	Paper boards.
Gair Company Canada Ltd. (York Mill Div.)	Toronto	Toronto	Paper boards.
Garden City Paper Mills Co.	Merritton	Merritton	Miscellaneous fine papers, tissue papers other than sanitary, wrapping papers.
The Great Lakes Paper Co.	Fort William	Fort William	Groundwood, unbleached sulphite (strong), unbleached sulphite (news grade), chemical screenings, newsprint.
Hinde & Dauch Paper Co. of Canada	Toronto	Toronto	Paper boards.
Hinde & Dauch Paper Co. of Canada	Toronto	Trenton	Paper boards.
Howard Smith Paper Mills Ltd.	Montreal	Cornwall	Soda pulp, bleached sulphite (paper pulp), book, fine and miscellaneous fine papers, special industrial and wrapping papers, paper boards.
Interlake Tissue Mills, Co.	Toronto	Merritton	Groundwood, miscellaneous fine papers, tissue and sanitary papers, special industrial papers.
Kimberly-Clark Corp. of Canada	Toronto	Kapuskasing	Sanitary papers.
K.V.P. Co.	Espanola	Espanola	Groundwood, bleached, semi-bleached and unbleached kraft pulp, chemical screenings, newsprint, groundwood printing and specialty papers, book and wrapping papers, paper boards.
Long Lac Pulp and Paper Co.	Terrace Bay	Terrace Bay	Bleached kraft pulp.
Marathon Corp. of Canada	Toronto	Marathon	Bleached and semi-bleached kraft pulp.
The Miller Brothers Co.	Trenton	Glen Miller	Paper boards.
The Ontario-Minnesota Pulp & Paper Co.	Fort Frances	Fort Frances	Groundwood, mechanical screenings, newsprint, groundwood printing, and specialty papers.
The Ontario-Minnesota Pulp & Paper Co.	Fort Frances	Kenora	Groundwood, mechanical screenings, unbleached sulphite (news grade), chemical screenings, newsprint.
The Ontario Paper Co.	Thorold	Thorold	Groundwood, unbleached sulphite (strong), unbleached sulphite (news grade), newsprint.
Provincial Paper Ltd.	Toronto	Port Arthur	Groundwood, bleached sulphite (paper pulp), unbleached sulphite (strong), chemical screenings, newsprint, groundwood printing and specialty papers, book paper, fine papers, wrapping papers.
Provincial Paper Ltd.	Toronto	Thorold	Newsprint, groundwood printing and specialty papers, book paper, fine papers, miscellaneous fine papers.
Provincial Paper Ltd.	Toronto	Mille Roches	Did not operate in 1955.
St. Lawrence Corp.	Montreal	Nipigon	Did not operate in 1955.
St. Lawrence Corp.	Montreal	Red Rock	Groundwood, unbleached kraft pulp, semi-chemical pulp, newsprint, paper boards.
Sonoco Products Co. of Canada	Brantford	Brantford	Paper boards.
Spruce Falls Power and Paper Co.	Toronto	Kapuskasing	Groundwood, unbleached sulphite (news grade), newsprint.
Strathcona Paper Co.	Napanee	Strathcona	Paper boards.
The Thorold Pulp Co.	Thorold	Thorold	Groundwood.
Welland Pulp Products Ltd.	Thorold	Thorold	Groundwood.
Manitoba			
Building Products Ltd.	Montreal	Winnipeg	Groundwood, defibrated or exploded wood, building papers, building boards.
Fibreboard Manufacturing Ltd.	Winnipeg	Winnipeg	Groundwood, building boards.
Manitoba Paper Co.	Toronto	Pine Falls	Groundwood, unbleached sulphite (news grade), newsprint.
Alberta			
Building Products Ltd.	Montreal	Clover Bar	Defibrated or exploded wood, building papers, paper boards.
North Western Pulp & Power Ltd.	Calgary	Hinton	Bleached kraft pulp.
British Columbia			
Alaska Pine & Cellulose Ltd.	Vancouver	Port Alice	Bleached sulphite (dissolving), bleached sulphite (paper pulp).
Alaska Pine & Cellulose Ltd.	Vancouver	Woodfibre	Bleached sulphite (dissolving), bleached sulphite (paper pulp).
Canadian Forest Products Ltd.	Vancouver	Port Mellon	Semi-bleached and unbleached kraft pulp.
Canadian Forest Products Ltd.	New Westminster	New Westminster	Defibrated or exploded wood, building boards.
Columbia Cellulose Co.	Prince Rupert	Watson Island	Bleached sulphite (dissolving), bleached sulphite (paper pulp), unbleached sulphite (strong).
Crown Zellerbach Canada Ltd.	Vancouver	Ocean Falls	Groundwood, mechanical screenings, bleached sulphite (paper pulp), unbleached sulphite (news grade), semi-bleached and unbleached kraft pulp, chemical screenings, newsprint, groundwood printing and specialty papers, tissue, sanitary and wrapping papers, paper boards.
Elk Falls Co.	Campbell River	Campbell River	Groundwood, newsprint.
MacMillan & Bloedel Ltd.	Vancouver	Nanaimo	Bleached and semi-bleached kraft pulp.
MacMillan & Bloedel Ltd.	Vancouver	Port Alberni	Unbleached kraft pulp.
Powell River Co.	Vancouver	Powell River	Groundwood, mechanical screenings, unbleached sulphite (strong), unbleached sulphite (news grade), chemical screenings, newsprint, paper boards.
Sidney Roofing & Paper Co.	Victoria	Victoria	Groundwood, wrapping and building papers, paper boards.
Westminster Paper Co.	New Westminster	New Westminster	Groundwood, tissue paper and sanitary papers, wrapping papers.

(1) Under construction

Fine Paper

during construction of the St. Lawrence Seaway project.

Plant at Thorold, Ont., has four paper machines with annual capacity of 135,000 tons. Port Arthur plant has a daily capacity of 95 tons with its two paper machines, 60 tons with its sulphite mill and 100 tons with its groundwood plant.

A paper coating mill at Georgetown, Ont., has an annual capacity of 12,000 tons.

A new paper machine went into operation at Thorold early in 1956, and this is reflected in the satisfactory volume and earnings of Provincial Paper during first half of 1957, said Abitibi president, D. W. Ambridge.

Abitibi's total production of printing and fine papers in 1956 was 98,038 tons, an increase of 14% over 1955's 85,972 tons.

Company raised its fine paper prices by 2½% to 4%, depending upon quantity and grade, in June of this year.

Rolland Paper

Rolland Paper Co. manufactures and sells high-grade, writing, ledger, air mail, offset, litho book, letterpress book and mimeograph papers. Sales offices are located in Toronto, Winnipeg and Vancouver.

Company's plants are located at Mont Rolland and St. Jerome, Que. Production of the Mont Rolland mill is about 16,000 tons of sulphite bond and book papers.

The St. Jerome mill has a production of about 20,000 tons of high-grade rag stock and sulphite bond papers on one machine and a second machine —installed this year and put into operation last month—has an annual capacity of between 15,000 and 18,000 tons of sulphite bond, offset and duplicating papers.

Company has just completed a $5-million expansion program at the St. Jerome mill which included construction of a new 160-inch paper machine, with a daily capacity of 100 tons. The machine is electronically controlled, and is one of the largest machines making fine papers.

In addition to the machine, company installed a new filtration plant at St. Jerome, a new stock preparation building and equipment to supply requirements for the new machine and a new finishing room equipped with a 100-inch trimmer.

At Mont Rolland a new filtration plant has also been constructed and put into operation.

The new capacity will enable the company to alternately close down existing machines for overhaul and modification without interfering with production schedules. The new paper machine itself will ultimately increase company's capacity for saleable products by over 54%.

The two mills have a combined floor area of approximately 510,000 sq. ft. and combined plant sites comprise about 377 acres.

To finance the expansion program, company in January of 1956 sold privately $1,500,000 in 3¾% first mortgage bonds, Series A and offered publicly $4 million in 4½% first mortgage sinking fund bonds Series A. Part of the proceeds of this issue were used to redeem $1,225,000 in first mortgage bonds outstanding at the time.

Prior to the new issue, company split its authorized common shares (then 100,000) on a three-for-one basis — two of the new shares being designated as Class A and the other as Class B.

Class A shares are entitled to a non-cumulative cash dividend at the rate of 80c per year and share equally with Class B stock in any further distribution after Class B shares have received 40c per share.

In 1956 all machines ran at full capacity and so far this year have been running at almost full capacity, company reports. Virtually all of company's production (approximately 97%) was shipped to the Canadian market.

In 1956 company's net profit was $725,271, 25% higher than $380,095 in the previous year. This represents earnings of $3.76 per Class A share ($2.95 in 1955) and $3.36 ($2.55) on the Class B, in both cases after taking participation feature into consideration.

As at Dec. 31, 1956, authorized capitalization comprised $10 million in first mortgage bonds of which $3,350,000 in 3¾% serial bonds (due Jan. 2, 1958-66) and $4 million in 4½% sinking fund bonds (due Jan. 2, 1957) were outstanding; 2.5 million in 4½% cumulative redeemable preferred shares ($100 par) of which 1.7 million were issued and outstanding; 200,000 Class A participating shares (npv) of which 120,002 shares were issued and outstanding; 100,000 Class B (npv) shares of which 60,001 were issued and outstanding.

Current assets were $4,350,998 ($4,118,412 one year earlier) while current liabilities were $2,279,055 ($1,578,245) resulting in a working capital of $2,071,943 ($2,540,167).

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LA PROVINCE DE Québec

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Fine Paper

(CONTINUED FROM P. 83)

Co. this year acquired majority control of Howard Smith Paper under its limited offer to acquire additional common shares of the company. The offering, on the basis of 3½ Dominion Tar shares for each common share of Howard Smith resulted in Dominion Tar increasing its holding from more than 33% of the outstanding common to 53.5%.

Capital expenditures last year were $7,582,246 ($7,381,352 in 1955) and funds set aside for future expenditures and other corporate purposes at year end were $4,138,600 ($4,155,531 in 1955).

Combined total sales of all companies for 1956 reached $104,437,815, up almost 15% over 1955.

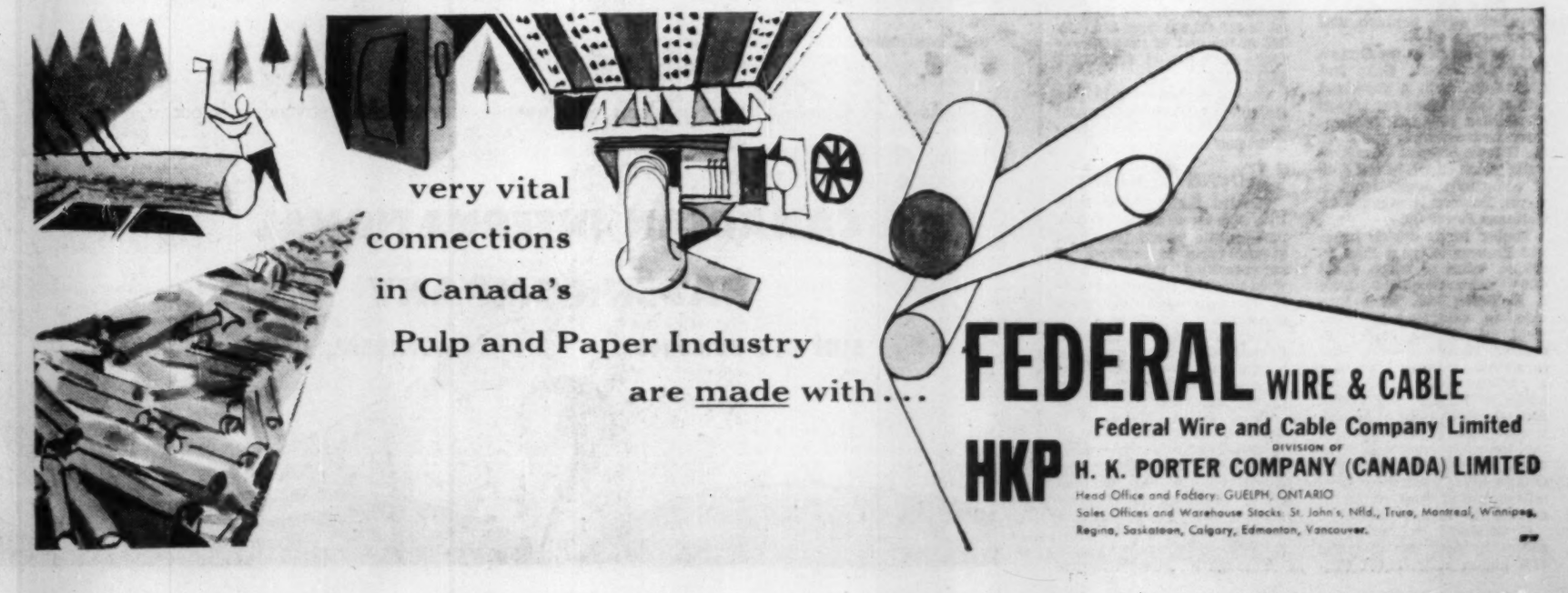
Some of the main items in present program include Cornwall, new recovery furnace and new finishing equipment; Canada Paper, extension to bag factory; Donnacona, new steam boiler; Alliance, extension to finishing room and new Komys cylinder.

Outstanding capital stock consists of 160,000, $50 par, $2 cumulative preferred shares and 1,742,750 npv common shares. Funded debt outstanding at Dec. 31, 1956, amounted to $1.8 million 2¾% first mortgage bonds, 1950 Series, and $6 million 3% first mortgage bonds, 1950 Series; $3,547,500 4½% Series A debentures. At Dec. 31, 1956, there were also outstanding bonds of Donnacona Paper Co.

Provincial Paper

Provincial Paper Ltd., wholly owned subsidiary of **Abitibi Power & Paper Co.**, manufactures and distributes high-grade book litho, bond, coated and writing papers.

Provincial has three plants, with a productive capacity of about 106,000 tons a year. The original plant at Mille Roches has been closed, to be flooded



Paper Containers

Bathurst

Bathurst Power and Paper Co., through its five-plant container division, produces a substantial amount of corrugated boxes and allied products from kraft liner board and corrugating board.

Company's groundwood, sulphite pulp, semi-chemical pulp, kraft pulp and industrial paperboard mills are at Bathurst, N.B., while container plants are at St. Laurent, Montreal, Que., and Hamilton, Toronto and Whitby, Ont.

Toward the end of 1954, company formed the container division to correlate operations of **Canada Wirebound Boxes Ltd.**, of Toronto and Montreal (acquired in that year), with company's other two subsidiaries manufacturing corrugated boxes, **Kraft Containers Ltd.**, of Hamilton and **Shipping Containers Ltd.**, now of St. Laurent, Que. In 1955 Bathurst acquired the remaining issued Class A shares of Canadian Wirebound Boxes, thus making it a wholly owned subsidiary of the company.

Container Division markets corrugated boxes under the name of "Bathurst Containers."

In 1956 company's container plants converted a total of 92,960 tons of container board into corrugated products, an increase of 2,740 tons or 3% over the previous year. The plants also used a total of 15,294,242 board feet of lumber and of veneer in the production of wood products, up 1,153,948 board feet or 8% over 1955.

In April of last year, company's new container plant at Whitby, Ont., came into operation and is the third of the company's plant container division to be located in Ontario. The new plant has approximately 200,000 sq. ft. of accommodation and has been designed to allow for future expansion when required.

Last year, company also enlarged and improved its facilities for manufacture of colored corrugated boxes by installation of the first four-color printer-slotter machine to be operated in Canada. The machine was installed at the Hamilton plant.

The new unit, together with additional color-printing and color-tinting equipment acquired during the year has reinforced the ability of the container division to provide multi-color printing and tinting on corrugated boxes in a wide range of color effects and designs.

Company reports the striking use of color in corrugated boxes and the result of new technique for merchandising is receiving an increasing acceptance from customers and offers great potential for the future.

Company is also stepping up its research and development program and in addition to making improvements into modern design and function of corrugated boxes has introduced on the market a wide variety of new containers. Plans have been completed for establishment for a testing laboratory at the Toronto plant in order to provide increased testing and evaluation services for the sales department and customers in the Ontario region.

The art and rubber dye departments have also been expanded to provide additional facilities with which to meet demands of customers for container artwork.

The current capital improvement program calls for purchase and installation of additional machinery and equipment in all five container plants for the manufacture of corrugated and wood products. The improvements are part of a long-range program designed to improve and create efficiencies as well as to expand manufacture facilities of the company.

In 1956 company's mills produced 117,918 tons of container boards, up 7.8% from 109,370 in the previous year while boxboard production at 25,624 tons moved ahead 7.4% over 23,856 tons in 1955.

As a result of a substantial increase in consumption by company of unbleached sulphite pulp in manufacture of industrial paperboards, tonnage of pulp for sale manufactured during the year decreased by 4,016 tons. In addition groundwood pulp produced for sale in 1956 was also slightly lower than the production the previous year.

Company reports volume and value of sales of boxboards in 1956 was the highest on record. Sales of container board to outside customers were lower than 1955 as a result of reduction in demand.

In December of last year company introduced an improved grade of kraft liner board which features a new shade, brighter in hue than a natural-colored kraft liner board and an improved surface especially suited for use in the production of corrugated boxes for printing in color.

Company reports that a noticeable weakening in the demand for container boards and corrugated products within the shipping container industry appeared in August of 1956 and continued for the balance of the year. The tightening of credit in the Canadian economy has been a factor. Customers have progressively reduced inventories and are ordering their requirements more or less on a day-to-day basis.

The weakening in demand within the shipping container industry has continued this year. This trend may be expected to continue in the future, company notes.

For other write-ups on this company, see the specialty paper and paperboard sections of this issue.

Dom. Containers

Dominion Containers Ltd., manufactures corrugated packing cases, folding and set-up boxes, displays and transparent boxes. Company has two plants, both located in Montreal.

During the past year, company acquired machinery and equipment of **United Paper Box Co.**, Trois Rivieres, Que. Production at United's former plant has been suspended and equipment is being moved to Dominion's two Montreal plants as required. As a result of the acquisition, Dominion also acquired a number of United's key personnel. An increase in business is anticipated as Dominion will, wherever possible, service United's former customers.

One of Dominion's plants produces corrugated products while the other makes folding and set-up boxes and in addition is the site of the company's head office. The new corrugating plant was put into production in April of 1954.

Company has two subsidiaries, **Standard Paper Box Manufacturing Ltd.** and **King Paper Box Manufacturing Ltd.**, both located in Montreal and both engaged in selling company's products.

Company reported a substantial increase in sales in 1956, and net profit increased to $575,958, 77% above 1955's $324,921. The improvement reflected more efficient manufacturing operations, development of new products and effective sales promotion, company says.

Capital expenditures in 1956 totaled $309,281, and at Dec. 31, company was committed to further expenditure of $250,000 for machinery.

Funded debt consists of $175,000 4% first mortgage bonds due 1959-60; $125,000 4½% bonds due 1961-65; $207,000 4½% sinking fund debentures due 1968; and $299,700 5% redeemable debentures due 1972. There are 103,847 common shares, on which earnings amounted to $5.55 per share in 1956 ($3.13 the previous year). Dividends amounted to 20c a share in each of the two years.

Gair Co.

Gair Co. Canada is a wholly owned subsidiary of **Continental Can Co.**, New York. **Robert Gair Co.**, New York, and Continental Can merged their operations in October, 1956.

Gair Co. Canada manufactures and sells corrugated and fibre shipping containers and folding paperboard cartons. It manufactures paperboard for its own use. Other products include counter display cartons, cracker caddies, paper specialties, gummed tape, and mechanical pulp.

Operating properties include two paperboard mills in Toronto and one in Montreal, a pulp mill at Campbellford, Ont., and folding carton plants at Toronto, Montreal, Winnipeg and Edmonton. There are shipping container plants at Toronto, London and Montreal.

Company will shortly begin a $1-million expansion at its London, Ont., container division. Project will increase production of corrugated shipping containers by about one third with completion slated for early 1958.

At Winnipeg, company has under way a $2-million folding carton plant which will be completed early next year. This will replace the present two plants in Winnipeg.

Company's new $700,000 corrugated container plant in Montreal began operation last year. Capacity is about 100 million sq. ft. of corrugated boxes.

Financial results of the Canadian company are no longer published separately. Company's Canadian sales in 1953, the last year for which figures are available, were $23.8 million. Tonnage sales of ore products totaled 109,000 tons.

Hinde & Dauch

Hinde & Dauch Paper Co. of Canada, Toronto (controlled by **Hinde & Dauch Paper Co.**, Ohio), manufactures jute liners, wrapper and header stocks, and a wide variety of paperboards at its paper mills, and corrugated and solid fibre boards, boxes, folding cartons, etc., at the box factories.

Art, research and engineering facilities are maintained for consultation on packaging problems, and to develop new uses for the company's products.

Plants are located at Toronto, Etobicoke, Trenton, Chatham and Montreal.

Installation of a semi-chemical pulping unit at the Trenton, Ont., board mill was completed in December, 1956. Purpose was to convert the mill from use of cereal straw to pulpwood as its raw material. This has resulted in greater capacity, more economical production and freedom from raw material shortages.

Plans for construction of a $1.5-million box plant at St. Mary's, Ont., were announced this summer. Plant is expected to go into production in the fall of 1958.

Consolidated net profit for the year ended Oct. 31, 1956, was 5% lower at $1,859,450 ($1,956,704 in previous year). Earnings per share were equal to $5.17 ($5.44). Dividends amounted to $1.80 ($1.80) per share.

The lower profit reflects the increased cost of certain raw materials and labor, stronger competition and higher contribution to company pension plan. The greatest single adverse effect on profits came from the Trenton plant where company had to introduce costly equipment.

Net sales increased by 9.5% to a record $30.6 million. Paperboard operations produced a record 107,600 tons (104,659 tons). Shipping case manufacturing plant's output increased to 1,566 million sq. ft. (1,476 million sq. ft.).

In November, 1956, an additional $2 million 3½% 10-year serial debentures due November, 1958-65, were issued.

Capitalization outstanding at July 31, 1957 included $5.2 million 2¾% and 3½% serial debentures due 1957 to 1965; and 360,000 common shares, no par.

Hendershot Paper

Hendershot Paper Products Ltd., Hamilton, makes corrugated paper shipping containers and corrugated single face specialties. It has two plants at Hamilton.

Company also has a 23-acre site on which it plans to erect a new plant. It proposes to build a plant to house both single-space and double-space operations, and also allow for future expansion. This is now in planning stage and will be carried out when most opportune, company says.

Company last year brought into operation its newly equipped single-space plant thereby considerably increasing potential productivity of specialty items.

Net profit for 1956 was $175,862, 3.9% higher than $169,300 for 1955.

Company issued an additional 4,500 6% preferred shares, $100 par, and 35,000 rights to purchase new common shares at $6 each up to Sept. 28, 1956. It also issued 24,000 warrants entitling owners to purchase one new common share at $6.50 to Dec. 31, 1957.

Capitalization outstanding at July 31, 1957, includes 7,000 6% cumulative redeemable preferred shares, $100 par; and 155,214 common shares, no par.

Maritime Paper

Maritime Paper Products Ltd., is a holding company with one wholly owned subsidiary—**Industrial Containers Ltd.** The latter company is engaged in fabricating cartons and other corrugated products for industrial uses and has a plant in Halifax, N.S.

Capitalization comprises 8,750 in 5% cumulative preferred shares ($20) par of which 6,403 are outstanding; 15,000 common shares (npv) issued and outstanding.

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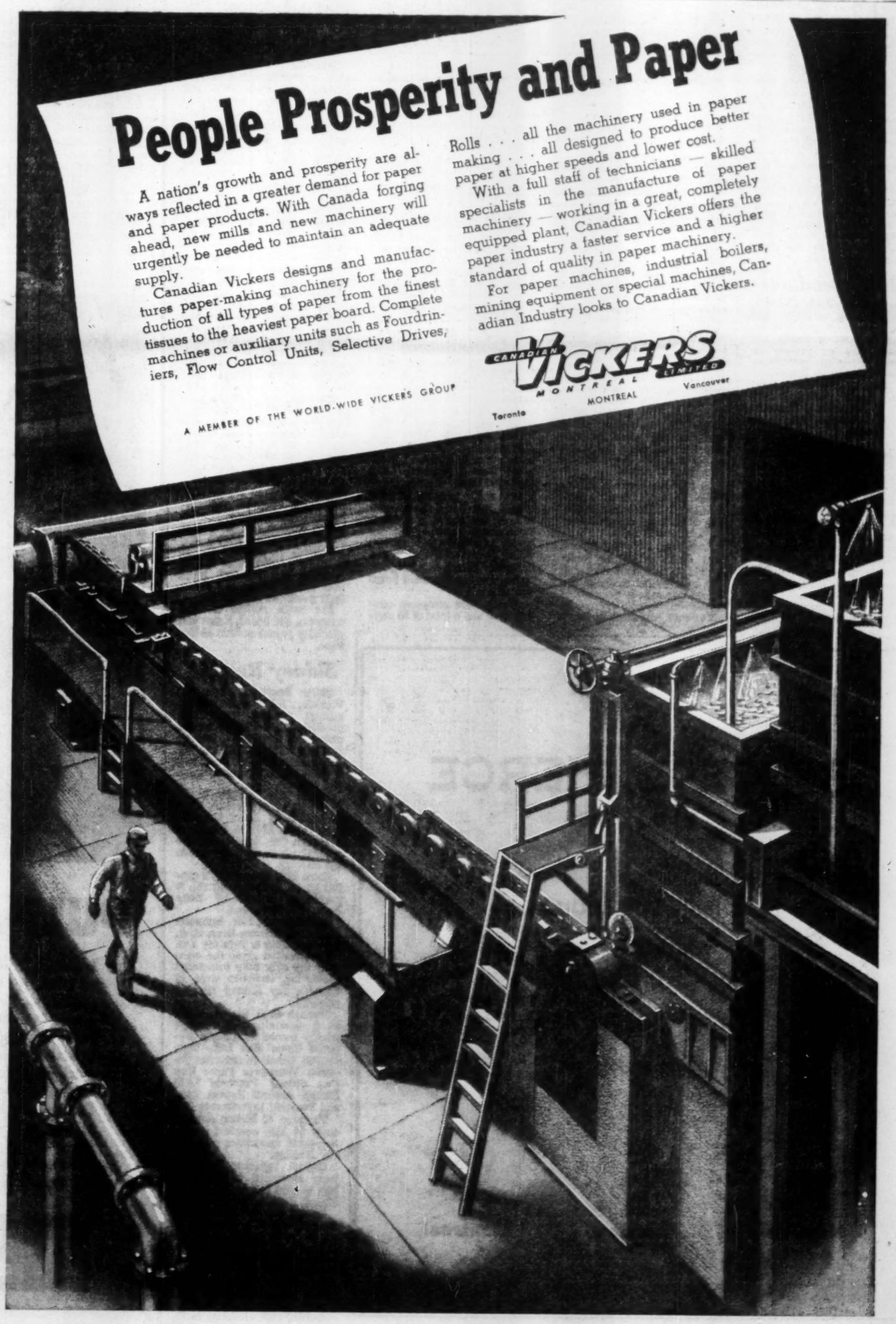


Building Papers

Arborite Co.

Arborite Co., a subsidiary of **Howard Smith Paper Mills Ltd.**, was incorporated Nov. 14, 1947, as a mass producer and custom laminator to manufacture and sell decorative and industrial laminates. The former, marketed under the trade name "Arborite" includes wallboards and table-top grades. The latter includes all NEMA grades which are used extensively for electrical and mechanical applications.

Arborite commenced operations in a temporary pilot plant adjacent to the parent company's plant at Cornwall, Ont. A new plant at Ville La Salle, Montreal, was completed and equipment transferred there by August of 1948.

During 1956, company's manufacturing and storage areas were increased about 20%. Company also brought its new department, which faces aluminum extrusions with patterns to match the Arborite designs, into production.

Company's new industrial convolute tube and rod section was also completed during the year and entire output, along with industrial laminates, is being marketed through **Diamond State Fibre Co.**, with whom Arborite has a working agreement.

To expand sales in the U. S. company has an agreement with **Consolidated Water Power & Paper Co.** of Wisconsin Rapids, Wis., for manufacture in the U. S. of a product similar to Arborite—the general name under which company products are sold.

For this purpose a new company—named **Consoweld Corp.** was formed in which Howard Smith owns 26% of the issued capital stock and Consolidated Water Power & Paper Co. the remaining 74%. A new modern plant for manufacture of this product was placed in operation at Wisconsin Rapids by Consoweld in 1954.

Operating results of Arborite are consolidated with those of Howard Smith Paper Mills Ltd., covered in the fine paper section of this issue.

Bldg. Products

Building Products Ltd. produces asphalt shingles and tiles, rolled-roofing felt, wallboard, insulating board and sidings, building papers, expansion joints, waterproof paint and cement, fire retardant coating, and allied products. Trade names include B.P., Neponset, Ruberoid, Bird's, Vulcanite, Insul-Brick, Insul-Board, Dry Wall, Albi, etc.

Company also quarries and crushes rock and production includes trap rock for highway construction work and granules for manufacture of roofings.

Manufacturing facilities comprise 17 mills at six plant locations, and company produces or markets over 50 different types of roofing and other building materials.

Since 1947 it has been prime distributor of Fiberglas building insulation made by **Fiberglas Canada Ltd.**, Oshawa, Ont. Considerable export trade is carried on with Great Britain and other foreign countries.

At Pont Rouge, Que., company has a two-machine paper mill and ancillary facilities required for conversion of a portion of the paper output into wall and insulating board. A substantial addition at Pont Rouge, comprising a new board mill for production of homogeneous and decorated acoustical board was completed early this year and put into operation in April.

Company has a paper mill and roofing plant at Montreal (Ville La Salle) with capacity of 80 tons per day. Some of the paper produced is used in the roofing plant, the balance is sold to other paper converters.

At Hamilton, Ont., company has a second roofing plant with production similar to the one in Montreal. It also produces asphalt and vinyl floor tile at Hamilton. At present a new production line for the asphalt and vinyl floor tile is being built at Hamilton, at an estimated cost of almost $1 million. The line is expected to be completed by the end of this year.

Company has a one-machine mill at Winnipeg with facilities for conversion of portions of the paper output into wall and insulating boards, as well as a roofing and siding materials plant. At Edmonton another paper mill, capable of making a variety of papers, manufactures paper for roofing, boxboard and gypsum plants. A roofing plant is also located at Edmonton.

Company quarries and crushes rock at Havelock, Ont., for production of crushed stone used in highway construction and manufacture of roofing granules, both for company's own use and for sale to other roofing makers. Distribution warehouses are maintained in Vancouver, Toronto and Saint John, N.B., as well as at all manufacturing sites. In addition company has a sales office at Halifax, N.S. Head office is located at Montreal.

In 1956 net profit at $2,054,074 or $4.25 per common share was 12.8% higher than $1,602,066 or $3.31 per common share in the previous year.

Last year, company reports was characterized by mixed trends in various branches of the construction industry, and in the demand for its products. Industrial, commercial and institutional construction established new records with a correspondingly high demand for company's products used in these fields of construction. Residential building showed some decline, on the other hand, with the result that net effect of the foregoing was a moderate improvement in still greater improvement in dollar sales.

Sales for 1956 established a new record, and while volumes in the first part of this year have been at a lower rate than the corresponding period of 1956, company feels that overall sales for the full year (including sales of new products) may equal the 1956 record, but that increased costs, including fixed charges and start-up expenses on the new projects will tend to depress profit margins.

During 1956, net additions to fixed assets amounted to $1,983,937 and consisted principally of the new insulation board plant at Pont Rouge and a number of individually smaller projects. Company is now building a new production line for its asphalt and vinyl floor tile plant at Hamilton, Ont. (estimated to cost a total of $950,000) for which no expenditures of consequence were made during 1956. As at Dec. 31, 1956 unexpended balances on all approved capital projects amounted to approximately $1.3 million.

Capitalization as at Dec. 31, 1956, comprised 650,000 common shares (n.p.v.) of which 483,384 shares were issued and outstanding. Current assets at $9,170,986 ($8,355,089 in 1955) compare with current liabilities of $2,409,834 ($1,491,622) resulting in a working capital of $6,687,397.

The Paper in Packaging

	1950	1955	1956
		tons	
Wrapping	222,840	263,915	286,902
Liners	214,234	258,914	333,737
Container Chipboard	6,533	8,901	7,470
Corrugating Board	144,892	148,929	161,498
Folding Board for Boxes	157,690	185,877	205,750
Setup Board for Boxes	47,625	47,901	45,828
Other Boxboard	199,761	210,849	235,026

Donnacona

Donnacona Paper Co., Donnacona, Que., has manufacturing facilities which include an insulating board mill with an annual capacity of some 100 million sq. ft. Control is held by **Howard Smith Paper Mills.**

Products of the board mill include rough cast and laminated insulating boards; roof insulation and plaster lathe; rough cast, smooth, colored board; burl board for interior finishes; decorative specialties; Donnacousti sound-absorbing board; asphalt-impregnated board; refrigerator and special industrial board; termite proof board; and hard-pressed board and tile.

During 1956 company completed or had a total of 33 capital projects. These included improvements to the No. 3 paper machine in order to increase the machine's productive capacity. A 65-ton diesel electric switcher was purchased to facilitate spotting and shifting of freight cars. To accommodate heavy demand for acoustic tile, new drilling, processing and packing equipment was installed in the board mill. A 550-volt sub-station was erected to serve the electrical requirements of the pulp mill.

For main report on this company, see newsprint section of this issue.

Int. Fibre Board

International Fibre Board Ltd. is a subsidiary of **Canadian International Paper Co.** and manufactures "Ten/Test" insulating board, a wood fibre product.

Plant is at Gatineau, Que., and produces some 135 million sq. ft. annually. This includes "Ten/Test" insulating panels, roof board, asphalt sheathing, ceiling tile and Acousti Blocks. Distribution of these products is made by **International Panel Boards Ltd.**, another subsidiary of the C.I.P.

Capitalization comprises $1.5 million of cumulative $100 par first preferred outstanding, and 10,000 (n.p.v.) common shares.

Company has a subsidiary, **TenTest Fibre Board Co.**

Operating figures are consolidated along with those of **International Paper Co.**

Masonite Co.

Masonite Co. of Canada is a joint undertaking of **Canadian International Paper Co.** and **Masonite Corp.**, formed in 1939.

It manufactures all grades and types of hardboard products for sale in Canada and export markets. Production of the Gatineau plant is approximately 115 million sq. ft. per year of all kinds and grades of "Masonite" brand board, consisting of Masonite Presdwood, both standard and tempered; Quarterboard; Temprtile, and Century of Progress Flooring.

The Gatineau plant has been in operation since 1940.

Authorized and outstanding stock includes one million shares (npv) half of which are owned by Canadian International Paper Co.

Individual financial and operating statements are not submitted for publication.

St. Regis Paper

St. Regis Paper Co. (Canada) Ltd., a wholly owned subsidiary of **St. Regis Paper Co.**, New York, operates a plastic plant at St. Johns, Que.

The plastics plant commenced operations in June, 1951, and range of items produced includes laminated sheets, rods, tubes, molded and fabricated parts, decorative sheets and panelling. "Panelyte" is the company's trade name for its plastics. The panelyte plant uses paper, fabric and chemicals produced in Canada.

For main article on this company, see board, tissue and specialty papers section of this issue.

Sidney Roofing

Sidney Roofing & Paper Co., Victoria, B.C., manufactures asphalt roofing and allied products. These include asphalt shingles, insulated sidings, various building papers, asphalt preservative coatings and a wide range of paperboards and cartons.

Plants are maintained in Vancouver and Victoria, B.C.; Lloydminster, Alta.; Toronto, London and Mimico, Ont.; and Portneuf, Que. Sales offices are maintained in 12 cities across the country.

Some 82% of company's capital stock, including all the B shares, is owned by **Eddy Paper Co.**, Hull, Que.

In the fall of 1956, company purchased **Bulman Bros. B. C. Lithographing & Printing Ltd.** Its acquisition gives the company the only fully integrated converting facilities west of Toronto, say Sidney Roofing officials.

Bulman Bros. now operates as a subsidiary of another wholly owned subsidiary **National Paper Box Ltd.**, Vancouver. Other subsidiaries include: **Vancouver Paper Box Co.; Sidney Products Ltd.; Bishop Asphalt Papers Ltd.;** and **Portneuf Investments Ltd.**

Purchase of Bishop Asphalt early in 1955 resulted in nation-wide operations for Sidney Roofing.

Capital spending by company amounted to $2.8 million in 1956 and is likely to be almost double that in 1957.

During 1956, work began on the relocation and expansion of the main plant at a new Burnaby, B.C. site. Other projects included the building of warehouses, paper machine and stock preparation buildings and construction of a new sales office in Edmonton.

During 1956, company in association with **Holmes Foundry Ltd.** founded **Associated Mineral Wool Co.** in Mimico, Ont. Further projects for modernization and expansion are planned for this year.

Consolidated net profit in 1956 was $647,145, up 24.5% from year before. Earnings were equal to $12.94 per class A share ($10.39 in 1955) and $6.02 per class B share ($4.75). Dividends of 90c were paid on the A shares in both years while none were paid on the B shares.

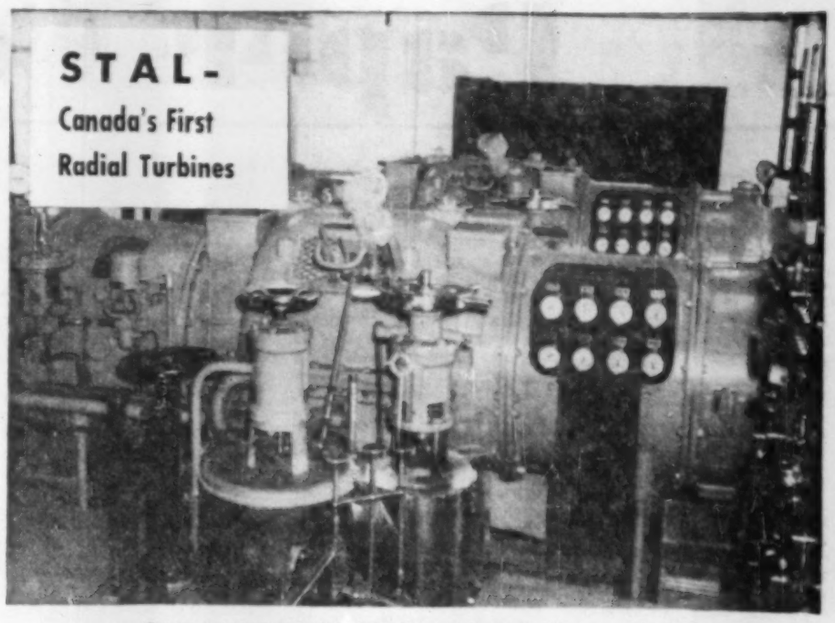
Net income reflects earnings of two of the subsidiaries for part of the year only; one discontinued operations and net assets were taken over by parent company; earnings of another are included from date of acquisition only.

In 1956 sales were a record, although only moderately higher than in 1955. Drop in residential construction cut down roofing division sales, but the paper mill division operated at a higher level, states President J. A. Craig.

Company expects high level construction in commercial and industrial fields during 1957 will offset smaller housing construction. Paperboard and converting divisions anticipate volume comparable to 1956 but expect to run into more competitive prices.

As part of its expansion program, Sidney issued $7 million 4½% first mortgage and collateral trust bonds. Over $3 million was used to retire Bishop Asphalt preferred stock and bonds and bank loans in both companies. Balance of $3.8 million was earmarked for general corporate purposes including the major expansion on the B. C. mainland at Burnaby where eventually an estimated $7 million will be invested in property, plant and facilities.

Capitalization outstanding at end of 1956: $2 million 4½% serial bonds due Sept. 1, 1958-65; $5 million 4½% sinking fund bonds due Sept. 1, 1975; 50,000 class A shares n.p.v.; 100,000 class B shares n.p.v.



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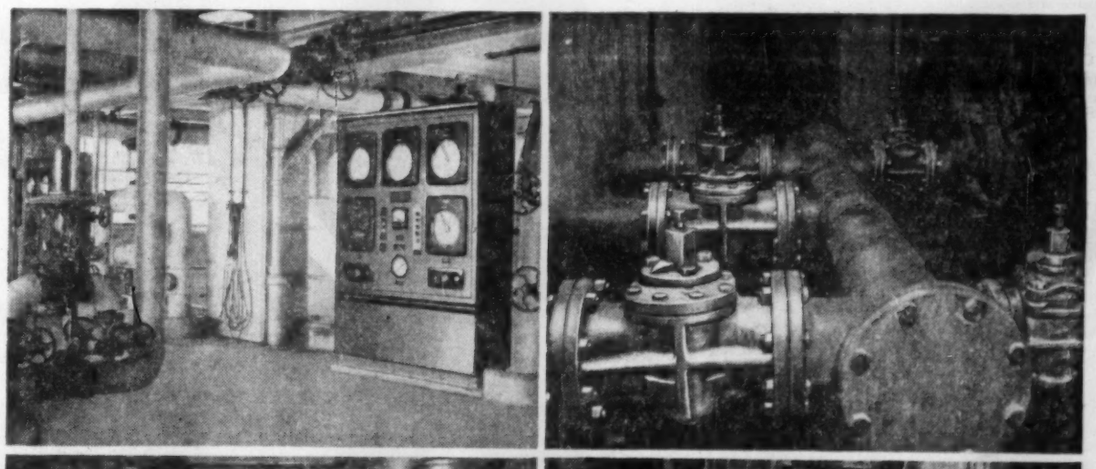

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The industry has, for many years, looked to Peacock for a wide range of equipment. The installations illustrated above are typical of the many in existence in mills across the country. *Top left:* Foxboro Sulphate Digester Controls in a large western pulp mill; *lower left:* Cuno Flo-Klean Filter handling mill water supply in an eastern paper mill; *top right:* Nordstrom Ni-Resist Lubricated Plug Valves on black liquor storage tanks and lines in evaporator room; *lower right:* Cleveland Worm Gear Speed Reducer on pulp drying machine drive.

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Abitibi

Abitibi Power & Paper Co., Toronto, in addition to newsprint, sulphite, pulp, etc., also makes paperboard, wrapping paper and many other items.

Corrugated board is produced at company's Sturgeon Falls, Ont., mill while the Iroquois Falls, Ont., mill also manufactures wrapping paper. Capacity of these mills is 38,537 tons and 14,153 tons per annum respectively.

Production of paperboard in 1956 amounted to 65,185 tons (56,679 tons in previous year).

For the main report on Abitibi see the newsprint section.

Anglo-Canadian

Anglo-Canadian Pulp and Paper Mills Ltd., produces paperboard and wrapper.

Company's board machine, installed in 1950, has a capacity of about 750 tons per day or 20,000 tons annually. Total production is sold to Canadian manufacturers of boxes and other packaging materials.

In 1956 paperboard production amounted to 22,434 tons, 1,068 tons or 9% more than 20,766 tons produced in 1955.

For main write-up for this company see newsprint section.

Bathurst

Bathurst Power and Paper Co., through its mills division manufactures and sells paperboard and pulp products, principally folding and set-up boxboards, kraft linerboards, BCM (Bathurst Corrugated Material), unbleached sulphite pulp and groundwood pulp. Through its container division company also produces and markets corrugated boxes and allied products, wirebound and wood boxes, crates and similar packing materials.

Mills operated by company are located at Bathurst, N.B., while corrugated boxes and allied products are exclusively manufactured in plants located at Hamilton and Whitby, Ont., and at St. Laurent, Que. Both corrugated boxes and wirebound, and wood boxes and allied products are manufactured in the Montreal, Que. and Toronto, Ont. plants.

The container division correlates the operations of three subsidiary companies manufacturing shipping containers

Canadian Wirebound Boxes Ltd., Kraft Containers Ltd., and Shipping Containers Ltd.

Formation of this division, in 1954, served to integrate all of company's activities in the container field under one department. All shipping containers manufactured within the container division are marketed under the trade name "Bathurst Containers."

Rated annual capacity of the mills division is approximately 33,000 tons of boxboards, 125,000 tons of kraft linerboards and BCM, and 24,000 tons of unbleached sulphite pulp. The rated annual capacity of the container division is 2,000,000,000 sq. ft. of corrugated board and approximately 14 million board ft. of lumber and veneer conversion into wirebound boxes.

In 1956 production of container boards at 117,918 tons and box boards at 25,624 tons reached new records and were 7.8% and 7.4% higher than 109,370 tons of container boards and 23,856 tons of box boards produced in 1955.

Volume and value of sales of boxboards in 1956 is also the highest on record for the company while sales of container boards to outside customers were lower than in the previous years due to a reduction in demand. Sales of unbleached sulphite pulp were lower in 1956 than in the previous years due to company's own increased requirements while groundwood sales were also off slightly. In 1956 production of sales pulp totaled 15,008 tons, off 21.1% from 19,004 tons in 1955.

Company's output of boxboards, kraft liner board and corrugating board is sold principally in the domestic market and for export to the U.K. and Australasia. A substantial proportion of the kraft liner board and corrugating board production is used by the converting plants which comprise the company's container division. Unbleached sulphite pulp is exported mainly to the U.S.

Company and its wholly owned subsidiary—**Cascapedia Manufacturing and Trading Co.,** hold under Crown licenses from the provinces of New Brunswick and Quebec a total of approximately 2,700 sq. miles of timber limits estimated to be able to supply wood requirements of the existing mills in perpetuity.

Company also operates a hydro-electric plant at Grand Falls on the Nepisiquit River in New Brunswick, with an installed capacity of about 14,000 hp. Other power sites in the same river, estimated to be capable of developing approximately 40,000 hp. are held or controlled by the company. At the mills themselves, company has installed a steam generating unit having a rate of capacity of about 23,000 hp.

On August 1, of last year, **New Brunswick Electric Commission** acquired from Bathurst a subsidiary — **Bathurst Electric and Water Power Co.** — which formerly retailed power to households, stores and businesses in the area. Power for this purpose was supplied by the parent company. It is reported that in the near future New Brunswick Electric Commission plans to supply power necessary for these services from its own power plants located at various points within the province, thus leaving all of company's steam generators free to develop energy for the company's own needs.

Bathurst's consolidated sales in 1956 were $37,116,355, up fractionally from $37,099,887 in the previous year.

Consolidated net profit at $3,043,752 was down 3.5% from $3,154,819 in the previous year. This represents earnings of $7.61 per class A share (before participation) and earnings of $4.44 per share on class B (after participation) compared with $7.89 and $4.78 respectively in 1955.

For the six months ended June 30, 1957, estimated net profit was $841,858, down 48% from the $1,534,310 in the first half of last year.

Capitalization as Dec. 31, 1956, comprised $3,264,500 in long term debt of the company and its subsidiaries ($8,813,500 in 1955); 750,000 class A shares (npv) authorized of which 400,000 were issued and outstanding and 500,000 class B shares (npv) of which 325,000 shares were issued and outstanding.

Current assets were $18,542,328 ($18,843,699 in the previous year), while current liabilities were $6,873,607 ($6,706,373) resulting in a working capital of $11,668,721 ($12,137,326).

Canada Paper

Canada Paper Co., a wholly owned subsidiary of **Howard Smith Paper Mills Ltd.,** produces newsprint, kraft, wrapping, rotogravure, envelope papers, box cover papers, paper bags and a wide range of converted products including creped and crinkled papers, towels, waterproof building and wrapping papers and many specialties.

Company's plant at Windsor Mill on the St. Francis River in Quebec includes a kraft pulp mill, a two-machine paper mill and a converting plant.

The St. Francis Mill, about one-half mile up river from Windsor Mills, has three paper machines. Annual capacity figures for the two plants are consolidated with those of Howard Smith.

Company's subsidiaries include **Schofield Paper Co.,** N.B., operating a wholesale warehouse in Saint John and Halifax and dealing in high-grade papers, wrapping, twine, newsprint, ruled forms, toilet papers, bags, etc. and **Kilgour's Ltd.** — operating wholesale warehouses in Montreal, Toronto, Hamilton, London, Ottawa, Winnipeg, Fort William, Regina and Saskatoon — and dealing in bags, wrapping paper, twine, paper and paper boxes, etc.

At the St. Francis division a number of important additions and improvements have been made during the past year. Alterations were made on company's No. 6 paper machine to both improve output efficiency and quality of the product. In addition the machine will be further modified in order to enable it to make kraft grades in addition to newsprint.

A 120 ft. by 203 ft. addition was built to the finishing and shipping room to provide more space for materials in process and an extension was added to the coal shed at the No. 4 boiler in order to improve coal handling and provide means to thaw out cars of frozen coal.

Company has improved efficiency of chemical recovery by installation of an electrostatic precipitator on its No. 3 furnace, a new white liquor clarifier and a new brown stock washer. A new drum barker was also installed to provide better equipment for debarking wood in winter.

The electrical system has also been revamped and new power lines and sub-stations have been installed. New drives were provided for the No. 4 paper machine and rewinder and the lighting distribution system completely revised for the St. Francis division.

At the converted paper products division, work has started on a new extension to provide an area of 80 ft. by 150 ft. to house a number of bag machines recently purchased.

Financial and operating statistics are consolidated with those of Howard Smith Paper Mills Ltd. for which see fine paper section of this issue.

Cdn. Wallpaper

Canadian Wallpaper Manufacturers Ltd., Toronto, together with its subsidiaries, is the largest manufacturer of its type of products in Canada. Trade names are Waterfast, Durawall, Permaplast, Sunworthy, and Semi-Trimmed. Plants are situated in New Toronto and Leaside, Ont.

Company has two wholly owned subsidiaries, **Dominion Colour Corp.** and **Empire Wallpaper & Paint Ltd.** (formerly **Empire Wall Papers Ltd.**).

For first time in recent years sales of Empire showed an improvement. This resulted in profitable operation. Due to acquisitions, number of stores operated increased from 13 to 21. Further expansion is contemplated in larger towns where there is no store at present.

Dominion again showed a small profit. Dry color sales continued to show an increase. However, profit margin in manufacture of pigments is very small. Additional expansion is planned which should show improvement in future years.

Canadian Wallpaper has embarked upon an extensive advertising campaign to promote the use of wall paper. It is also seeking to increase the use of wall paper in the U.S., especially pre-pasted wall paper.

Wall paper sales in the latest year (second year of Canadian line) showed an increase. This improvement was more marked in some sections, but was an encouraging trend which it is hoped will expand in future.

Consolidated net profit for the year ended April 30, 1957, was markedly lower at $60,737 ($225,294 in previous year). Earnings on the A and B stock were equal to 47c ($1.74) per share and dividends amounted to 20c (40c) per share.

Capitalization outstanding at April 30, 1957 included $100,000 4% serial debentures, due August, 1958-60; $500,000 5% debentures due August, 1961; 25,673 class A shares, no par; and 103,573 class B shares, no par.

Cdn. Glassine

Canadian Glassine Co., manufactures glassine and greaseproof papers, both in plain and laminated form, at its Limoilou plant near Quebec City.

Company was established four years ago and is 70% owned by the **Deerfield Glassine Co.,** Monroe Ridge, Mass., and 25% owned by **Anglo-Canadian Pulp and Paper Mills Ltd.** The remaining 5% interest is privately held.

Company's current production of both glassine and grease proof papers is in the vicinity of 14 to 16 tons daily. A $100,000 expansion and improvement program is now nearing completion which calls for increased floor space for finishing operations and the construction within the next six

(Continued on page 88)

How Forests Are Used

Average Annual Depletion 1945-1954*

	000's of cu. ft.	% utilized	% depleted
Logs and bolts for domestic use	1,343,684	44.4	42.1
Logs and bolts for export	10,559	.4	.3
Pulpwood for domestic use	984,109	32.5	30.8
Pulpwood for export	170,574	5.6	5.4
Fuelwood	433,494	14.3	13.6
Ties, poles, pit props, posts, rails	62,080	2.1	2.0
Miscellaneous	19,553	.7	.6
	3,024,053	100.0	94.8
Wastage by forest fire**	166,010		5.2
	3,190,063		100.0

* The figure for depletion does not include wastage caused by agencies other than fire, such as insects, diseases, and natural mortality, for which no reliable estimates are available.
** Excludes Newfoundland.

Waters • Corrosion and
efining • Fuel Oil Stabilizers •
ids • Slime and Algae Control •
Combustion Chemicals • Cationic •
lographic, Microbiological and

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Consulting Engineers

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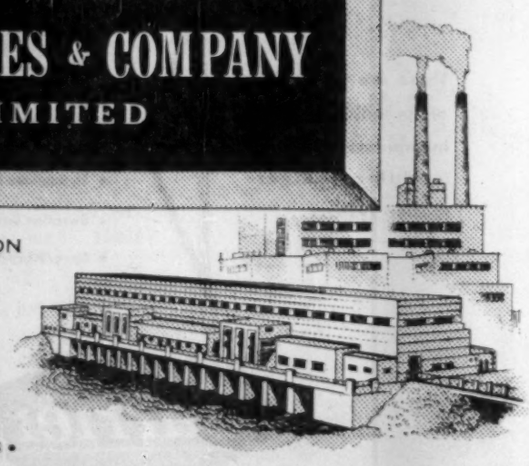

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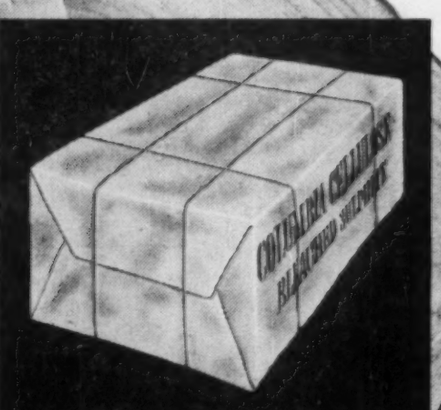
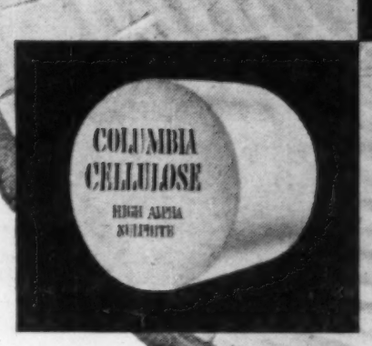
BLEACHED SULPHITE WOOD PULP





dissolving and specialty grades shipped in bales or rolls

For further details, write or phone

COLUMBIA CELLULOSE COMPANY LIMITED

Pulp Mill — Prince Rupert, B.C.
Sales Office — 1030 West Georgia St., Vancouver, B.C.

part of Chemcell
CANADIAN CHEMICAL & CELLULOSE COMPANY, LTD.

Specialties, Board

(CONTINUED FROM P. 87)

months of an additional building. The company is also installing new equipment which removes air from stock and water being used in the manufacturing process.

Further major expansions are currently in the planning stage.

Company reports its operations, from a financial standpoint, were successful in 1956 and so far 1957 have been termed satisfactory. Financial statements are not available for publication.

Company's products are handled exclusively by **Acer McLernon Inc.**, of Montreal.

Cdn. Int. Paper

With the acquisition from **Brown Corp.** in December, 1954, of a large mill at La Tuque, Que., **Canadian International Paper Co.** entered the kraft pulp field.

Following completion in March, 1956, of a $20 million expansion program at La Tuque, including installation of a 276-inch machine, the mill now produces bleached and unbleached kraft pulps, kraft linerboard, kraft paper and bleached kraft board and bleached food board, and has an over-all rate of capacity of 975 tons per day, unbleached basis. Present production is 350 tons per day of bleached pulp, 325 tons per day of board and paper and 250 gallons of turpentine. The equipment consists of two Minton driers, two Sherbrooke driers, three hydraulic machinery driers and the board and paper machine.

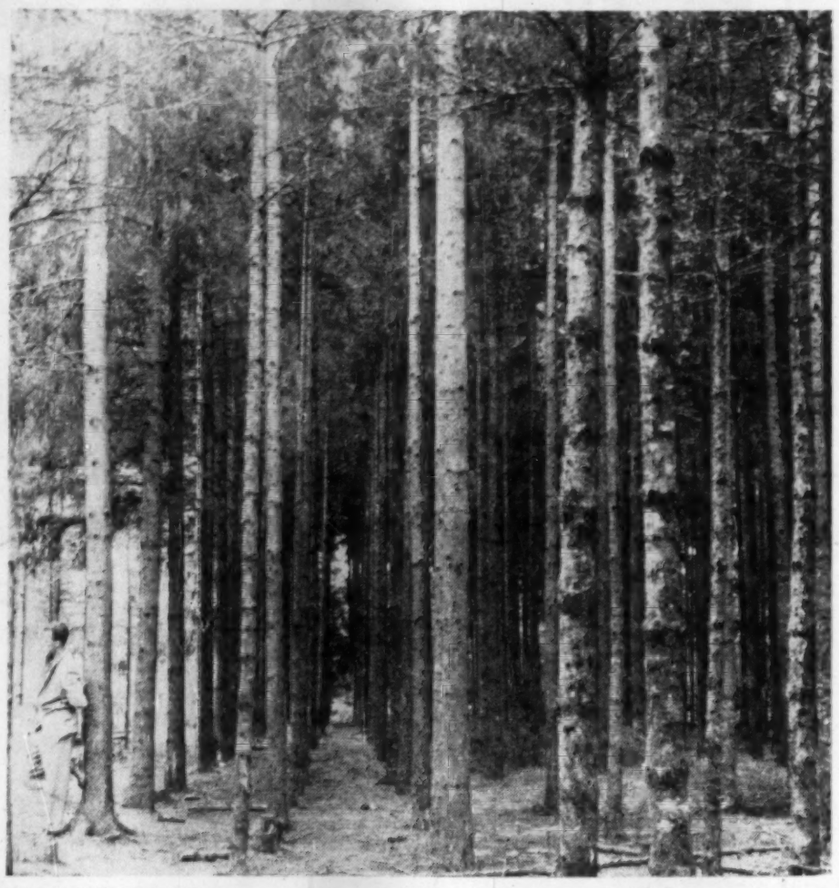
Wood for the La Tuque operation is obtained from nearly 5,000 sq. miles of woodlands in the Upper St. Maurice Valley, part of which are freehold, the balance being harvested on a lease arrangement with the Provincial Government. Power is obtained from **Shawinigan Water & Power Co.**

For main report on Canadian International Paper, see newsprint section of this issue.

Consol. Paper

Consolidated Paper Corp., is an important producer of kraft paper and board and wrapping paper in addition to company's newsprint and pulp operations.

Daily rate of capacity of company's Laurentide division, Grand'Mere, Que., and the Wayagamack division, Trois Rivieres, Que. is 57 tons of board and wrapper and 175 tons of kraft paper. Annual capacity is 53,945 tons of kraft paper and 17,556 tons of board and wrapper.



THE MOST EFFICIENT way of growing new forests is by encouraging natural regrowth. However, in some areas, replanting is necessary. Here is a reforestation of Norway spruce in Quebec.

Company's kraft paper is sold under the trade name of "Wayagamack Pure Kraft," is supplied in brown, white and colors, and is used for wrapping and converting purposes. It is also converted into paper bags of many kinds such as grocery, millinery and cleaner bags as well as office folders, tags, gumming, waterproofing, waxing and creping papers. A considerable tonnage is used in manufacture of multi-wall paper sacks for cement and other rock products, flour, sugar, chemicals and fertilizers. Tissue papers are also made in white and colors for wrapping, creping, waxing, twisting and foil backing etc.

Company's cardboard is sold under the trade name of "Laurentide Board" and is used in the manufacture of cardboard boxes, composition wall boards and as mounting boards for displays and many other purposes.

Consolidated net profit for the six months ended June 30, 1957 was $6,920,146 down 11.6% from $7,832,438 in the first half of 1956. Pulp and paper production sold in 1956 totaled 906,673 tons up 10.2% from 822,950 tons in the previous year.

For main write-up on this company, see newsprint section.

Dom. Cellulose

Dom. Cellulose Ltd., Toronto, and its associated company, **National Cellulose of Canada Ltd.**, manufactures face-cleansing tissues under the brand name of "Face-Elle." It also makes "Nancy" brand toilet tissue, and miscellaneous sanitary paper products.

Dom. Envelope

Dominion Envelope Co., Toronto, manufactures envelopes, specialty bags, and converts Cellophane into bags, rolls and sheets. It has a complete packaging service. Production is around 550 million envelopes and commodity bags yearly.

Company opened its new 115,000 sq. ft. plant on a 12-acre site in Toronto in the fall of 1955. Plant employs about 140 people and is said to be the country's largest printed envelope factory contained on one floor.

Several new envelope manufacturing machines were designed especially for the plant and operate on a straight line flow that reduces manufacturing time and cuts cost.

Design and internal layout was done by Dominion employees who, through their auxiliary management group, also advise company on capital expenditures, production, and sales problems, etc.

Dryden Paper

Dryden Paper Co. manufactures kraft pulp and kraft paper products consisting of wrapper papers, bag papers, gumming, envelope, waxing, carliners, waxed kraft, building papers, liner board and corrugating medium, at Dryden, Ont.

Capacity is now about 72,000 tons kraft pulp annually of which 49,500 tons can be converted into finished kraft and paper products.

Finished production last year was 76,164 tons.

Expansion of kraft pulp capacity began in 1955. Completion of program is planned for later this year. Capacity will be raised to 142,000 tons.

Company holds interest in **Woods-Dryden Paper Bags Ltd.** of Winnipeg and in the **Ormiston Mining and Smelting Co.**, a new salt cake producing company at Ormiston, Sask. Company holds 40% interest in Woods-Dryden and 12% in Ormiston.

Dryden is a subsidiary of **Anglo-Canadian Pulp and Paper Mills Ltd.**

Sales for 1956 totaled $11,042,485 up from $10,445,608 the year before. Net profit was $186,599 down from $850,926 in 1955.

E. B. Eddy

The E. B. Eddy Co. founded in 1851, manufactures and distributes a wide range of products including printing and converting papers, household products, grocery bags, industrial products, as well as being a substantial newsprint and paperboard producer.

Sales in all operating divisions were substantially higher in 1956 than in the previous year, in both physical volume and dollar sales. Shipments exceeded previous records but although the level of economic activity is high throughout the nation, company reports market conditions continued highly competitive with the accent placed on quality and service.

Further improvements were made in several of the paper machines of the E. B. Eddy Co. and subsequent increased output quickly compensated for business lost during the shut-down required to make these improvements. Increased machine speed and improvement in product quality, coupled with heavy demand for its products, resulted in forecast for significant sales increase in 1957, company reports.

Further details of this company are in the fine paper section of this issue.

Fraser Cos.

Fraser Cos., directly or through its subsidiaries, **Fraser Paper Ltd.** and **Restigouche Co.**, manufactures sulphite and groundwood specialty papers, chemical wood pulps, groundwood pulp, paperboard and lumber. The company operates sulphite and groundwood paper mills, sulphite and kraft bleaching plants, and a paperboard mill at Edmundston, N.B.; an unbleached kraft pulp mill at Newcastle, N.B. and sawmills and dressing mills at Cabano, Quebec and Plaster Rock, N.B.

One subsidiary, **Fraser Paper Ltd.** operates a paper mill manufacturing high grade specialty papers from chemical and groundwood pulps at Madawaska, Maine.

Another subsidiary, **Restigouche Co.** manufactures paper grade and dissolving grade bleached sulphite pulp at Atholville, N.B.

Capital expenditures during 1956 amounted to $5,011,088 against $4,174,830 in 1955.

Consolidated net profit for the year was $6,705,642 compared with $5,710,785 for the previous year. In the first six months of 1957 consolidated net was $2,542,394 against $3,388,077 in a like period of 1956.

Pulp, paper and paperboard products sold by the company increased to 284,815 tons against 273,169 for the previous year. Shipments of company products in 1956 were the highest in its history. The recent program of modernization and improvement to plant and equipment was the principal factor in establishing this record.

Interlake Tissue

Interlake Tissue Mills Co., manufactures a wide range of paper specialty products at its Merritton, Ont., plant. These include paper napkins, towels and allied products. Plant and equipment improvement carried on in recent years has enabled company to increase production substantially above its former level of 10,000 tons a year.

Interlake is privately owned and does not publish details of its financial resources. Capitalization stands at $625,000 in shares of $100 par value.

J. C. Wilson

J. C. Wilson Ltd., manufactures and distributes paper and paper products including wrapping paper, paper bags, folding boxes, shipping tags as well as distributing paper and

(Continued on page 89)

A highly diversified fleet of aircraft, suitable for the Canadian north, enables Wheeler Airlines to carry out a wide range of assignments in connection with the forest industries. These aircraft include the Otter, Beaver, Norseman and Cessna on floats, wheels or skis. Also the amphibious twin-engine Canso PBY for transport of heavier supplies or personnel; twin Beechcraft for passenger transport; four-engine C54, and twin-engine DC3 and C46 for heavy cargo and passenger work.

Wheeler Airlines have been prime contractors for the aerial spray projects over New Brunswick and the Gaspé Peninsula for the past five years, and maintain a fleet of Stearmen specially equipped for all types of aerial spray work.

Wheeler Airlines

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Telephone Victor 5-2772 (Montreal Direct Line or St. Jovite 192.
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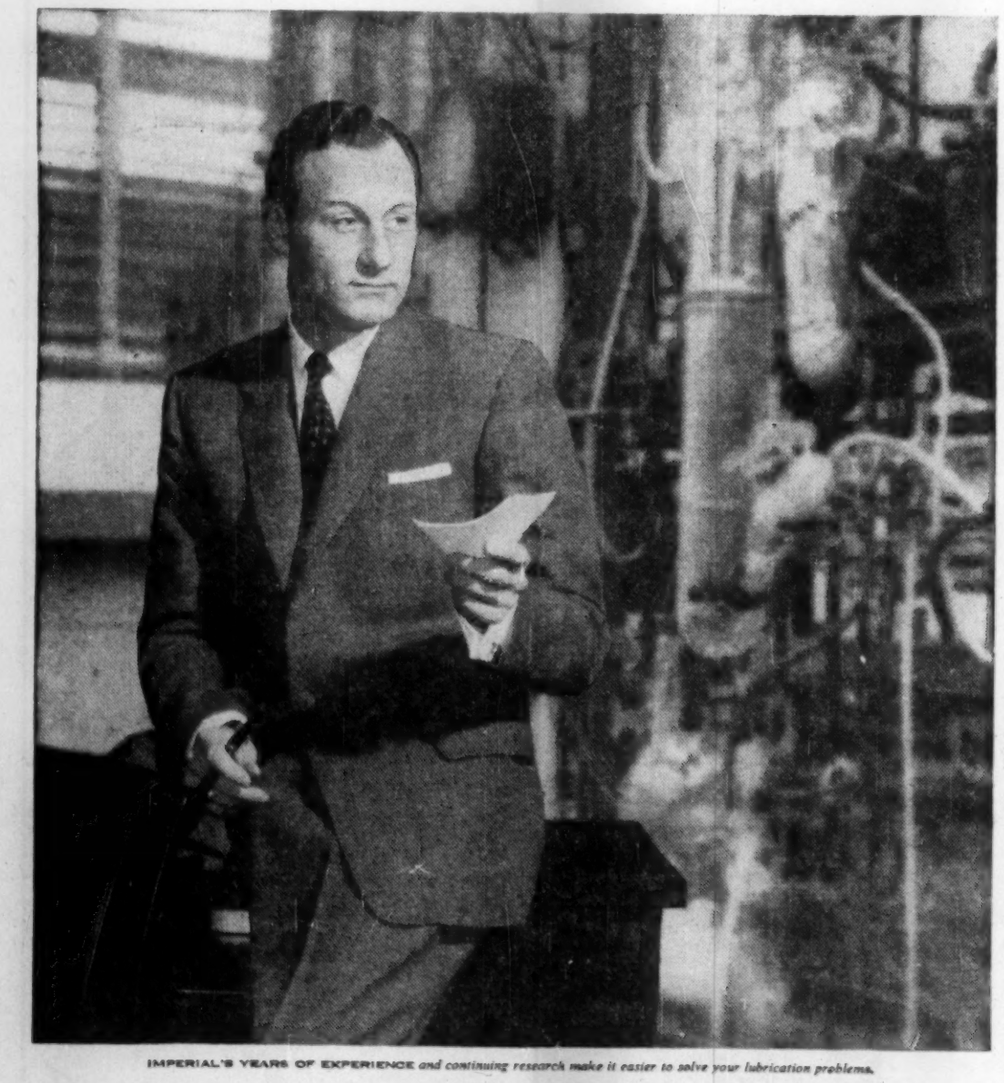

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IMPERIAL ESSO PRODUCTS

ALWAYS LOOK TO IMPERIAL FOR THE BEST

Specialties, Board

(CONTINUED FROM P. 88)

paper products of other manufacturers.

Company operates a paper mill, bag making and paper box plant at Lachute, Que., using about 6,700 tons of groundwood, sulphite and kraft annually.

About 1,200 tons of this wood requirement are supplied by company's groundwood mill near St. Jerome, Que.

Last year new mill offices and a laboratory were completed. New box plant machinery worth $50,000 and paper mill machinery worth $34,000 were purchased and installed.

Included in the new equipment purchased were three grocery bag machines, a bag printer and Cellophane window machine for boxes.

Consolidated net profit for 1956 was $150,912 compared with a loss of $81,041 in 1955. Manufacturing and distributing operations were second largest in company's history. Capitalization comprises 205,700 common shares (npv), of which 165,750 are issued and fully paid.

Kimberly-Clark

Kimberly - Clark Corp. of Canada, Toronto, a wholly owned subsidiary of **Kimberly-Clark Corp.,** Neenah, Wis., operates a cellulose wadding plant on the Kapuskasing River in Northern Ontario.

Kimberly - Clark Products Ltd. (formerly **Canadian Cellucotton Co.**) has a plant in Niagara Falls, Ont., and another at Winnipeg. It secures cellulose wadding, its basic raw material, from Kimberly-Clark of Canada and converts it into Kotex, Kleenex, Delsey and Kleenex table napkins and distributes these products throughout Canada.

In line with a decision to integrate all Canadian operations of company under one control, a new Canadian headquarters staff was established in Toronto early this year.

Consolidated net earnings for Kimberly-Clark's three Canadian subsidiaries (Kimberly-Clark of Canada, **Kimberly-Clark Pulp & Paper Co.** and **Upper Canada Lumber Co.**), for year ended April 30, 1956 (latest year for which separate Canadian results are available) rose 6% over previous year's $1.7 million. Individual results of the subsidiaries are not published.

The Canadian companies wrote off normal depreciation of $218,355 ($225,977) and depreciation in excess of normal amounting to $128,291 ($168,278). At April 30, 1956 plant and property had been written down to $1,730,025 ($2,044,447) or 38.1% (45.3%) of original cost.

Minas Basin

Minas Basin Pulp and Power Co., is a manufacturer of groundwood pulp, paperboard as well as carrying out extensive lumbering in Nova Scotia. Company's mill at Hantsport, N.S. has a daily capacity of 110 tons of bleached and 20 tons of unbleached groundwood pulp.

Shipments of groundwood pulp reached 29,529 tons in 1956, 3,372 tons lower than the previous year. Most of the pulp is sold to the **Scott Paper Co.,** in the U.S.

Capitalization comprises 17,000 authorized common shares (npv), all of which are issued and outstanding.

Perkins Tissue

Perkins Paper Products Ltd. manufactures a diversified line of paper products including waxed papers, toilet tissues, paper towels and napkins, crepe papers, gift wrapping papers, shelf papers, table and tray covers and drinking cups.

Sales of these products are handled by three separate divisions of the company. These are the grocery trade; stationery, chain and department stores trade; industrial users such as hotels, restaurants, hospitals, institutions, etc.

Company operates from a modern plant in Ville St. Laurent, near Montreal, with a branch sales office and warehouse in Toronto. Head office is in Ville St. Laurent. Products are also carried in warehouses from coast to coast with resident salesmen and agents in all major centres.

Company was originally operated in 1930 under the name **Perkins Tissue Mills Ltd.** by P. F. Perkins and J. F. Perkins of Holyoke, Mass. Common stock was acquired from them in 1937 by other U.S. interests and was purchased by Canadian interests in 1947. Company is now owned and operated entirely in Canada.

Price Bros.

Price Bros. produces a large amount of paper besides its main newsprint operation.

The company operates under lease the **Jonquiere Pulp Co.'s** cardboard and specialty mill with 30,000 tons annual capacity.

At company's Kenogami mill in Quebec, besides the newsprint operation there is a cardboard and wrapping paper machine which has a capacity of 17,000 tons per annum. Products from this machine are mill wrappers, screening board, pulpboard, egg case filler board and imitation leather board.

Company reports new equipment is being installed at Kenogami as well as at the River Bend mills to augment production.

For financial details on the company, see newsprint section.

St. Lawrence Corp.

St. Lawrence Corp. manufactures a wide range of kraft, board and specialty papers at two of its five mills in addition to being a major producer of newsprint, unbleached sulphite, kraft, semi-chemical and groundwood pulps.

The two mills are at Red Rock, Ont., and East Angus, Que., and have a combined annual capacity of 230,000 tons.

Products include materials for shipping containers, set-up and folding boxes, multi-wall grocers' and specialty bags and many other specialty papers, both bleached and unbleached.

Over the next 2½-3 years, company plans to expand kraft pulp capacity at the Red Rock mill, which will ultimately increase annual output of the kraft board machine from 150,000 tons to over 200,000 tons. The program includes installation of a six-stage pulp bleaching plant which will provide a greater diversification of products.

Company's three other mills are at Trois Rivieres, Dolbeau, Que., and Nipigon, Ont. By the end of 1957 all five mills will have a combined annual saleable capacity of about 696,000 tons of pulp and paper products. Included in this total are 43,000 tons of market pulp, 234,000 tons of kraft products and 419,000 tons of newsprint.

For main write-up on this company, see newsprint section of this issue.

St. Regis Paper

St. Regis Paper Co. (Canada) Ltd., a wholly-owned subsidiary of **St. Regis Paper Co.,** New York, manufactures multiwall paper bags for industrial packaging of a wide variety of commodities.

Plants are located at Cap de la Madeleine and Montreal, Que., Dryden, Ont., and Vancouver, B.C. and use kraft paper produced in Canada. In addition, the company operates a machine shop in Montreal which provides packaging machinery service and also manufactures wire ties.

Production of the company is down slightly for the first six months of this year in about the same degree as that of the Canadian economy, company says. Domestic shipments of bags for packing fertilizer followed last year's pattern closely and in rock products shipments were down because of the tight money situation which is reflected in lower housing starts.

Use of polyethylene coated paper in multiwall bags is continuing to increase. Company's multiwall packaging division now ranks among the largest producers of polyethylene coated paper in the world. It produces this paper at its plants in Quebec and British Columbia.

Demand for high speed filling and weighing machines manufactured by the company for packing multiwall valve and open mouth bags has increased considerably and this trend is expected to continue. Co-ordinated packaging systems are being widely used throughout Canada and many new machines are being installed in a variety of industries.

Westminster Paper

Westminster Paper Co., Vancouver, produces a wide range of specialty products at its plant in New Westminster, B.C. Products include wrapping papers, decorative papers, plain and printed papers, water-marked papers, toilet papers, facial tissues and many others. Products are sold in Canada and in export markets, although the export business is not critical to the company.

In August, 1954, company entered a partnership with **Scott Paper Co.,** Chester, Pa., the largest manufacturer of sanitary products in the world.

Westminster recently acquired the Crabtree division of **Howard Smith Paper Mills Ltd.,** Montreal.

This gives Westminster a groundwood mill, one tissue machine and one fine paper machine. Previously it had no timber limits in Eastern Canada, and will buy some of the pulp for its operation in the area. One of its major problems in selling to this market had been the freight rates from B.C.

The tissue paper machine at the Crabtree division has an annual capacity of about 7,500 tons producing napkins, toilet tissue and cellulose blotting paper. The fine paper machine has a capacity of 11,000 to 12,000 tons and produces envelope, book, litho and other similar grades.

Although the sale is subject to approval by the board of directors of both companies, it is understood tentative arrangements call for Westminster to take over about Oct. 1. Westminster is buying all the rights to the trade name of the Cashmere family of products produced at the Crabtree division.

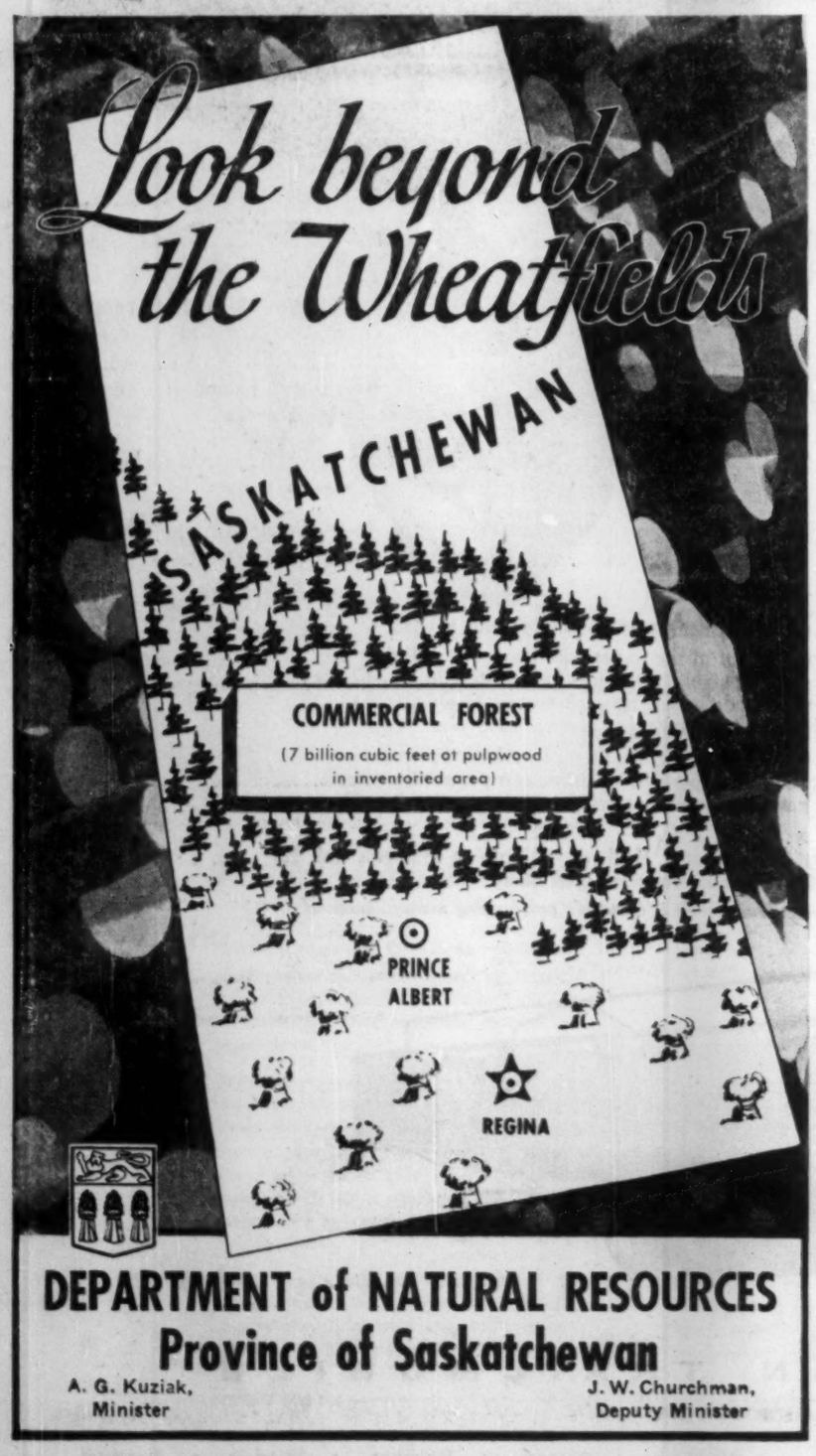
Westminster plans to add new production facilities at the Crabtree mills as soon as practicable. This will lead to manufacture of many Westminster household products there. It is understood that the expansion may take the form of an additional two new machines.

Since Westminster is partly owned by Scott Paper and is introducing Scott products in Canadian markets, it is anticipated company would also enter production of these lines at the Crabtree division.

Net profit for the 12 months ended Dec. 31, 1956, was $939,176 ($761,759 for the 11 months ended Dec. 31, 1955). Earnings were equal to $47.06 ($33.37) per A share, and $1.93 ($1.57) per B share. Dividends amounted to 50c (50c) per A share and 80c (80c) per B share.

Capital expenditures for new equipment and improvements amounted to $576,572. Company says it was able to reduce cost of goods sold in relation to sales.

Capitalization outstanding at Dec. 31, 1956, included 22,828 class A cumulative convertible shares, no par; and 477,172 class B shares, no par.

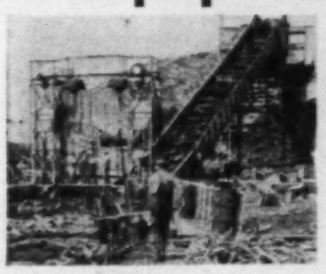


DEPARTMENT of NATURAL RESOURCES
Province of Saskatchewan

A. G. Kuziak, Minister

J. W. Churchman, Deputy Minister

From pulpwood to paper rolls - -

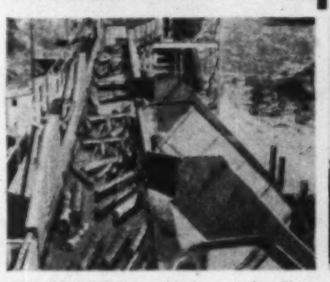


INTEGRATED SYSTEM of chain and belt conveyors provides high-speed pulpwood handling . . . links hot pond, outside barking drums, storage pile and power plant.

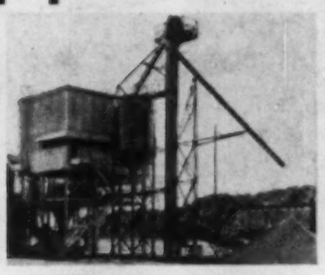
CHAIN CONVEYORS handle logs in large volume and at low cost. Link-Belt's complete chain line permits specialization for varying requirements of impact, wear and abrasion.

SLASHER CHAIN, with attachments, simplifies and speeds log cutting. Attachments relieve load stress on chain, absorb impact and protect chain against distortion and wear.

LINK-BELT equipment and engineering



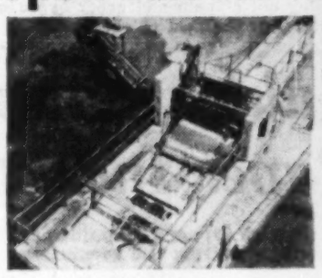
BELT CONVEYORS provide low-cost handling of logs, chips, chemicals—over long or short spans, indoors or out. Flexibility permits mechanized integration of operations.



BUCKET ELEVATORS are available in four basic designs and 13 types for handling of chips, lime, sulphur, salt-cake, etc. Broad line of chains and buckets extends efficiency and life.

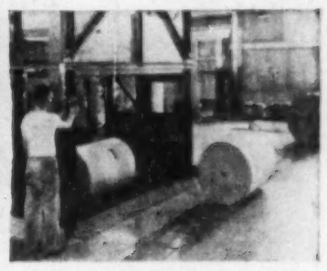
VIBRATING SCREENS size wood chips and screen out slivers and sawdust. Enclosed vibrator shaft and tightly sealed self-aligning bearings last longer, require little attention.

spell lowest handling costs



GRIT COLLECTORS provide efficient removal of bark and grit from flume water which has been used for conveying logs from woodyard. Grit chamber need not be drained.

POWER TRANSMISSION — Link-Belt manufactures a full line of enclosed drives, chain drives, self-aligning ball and roller bearings, pulleys, etc., to meet every need.



PAPER ROLL CONVEYORS and lowerers provide fast, gentle, automatic or semi-automatic handling of finished rolls . . . coordinate handling from machines to shipment.

Whatever materials handling and power transmission machinery you need for your pulp and paper mill, you can find it in the complete Link-Belt line. And we can design, equip and erect the entire installation . . . accept full responsibility for its successful operation. For facts, call your nearby Link-Belt office. Address: Dept. 821-FP.

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KAMYR
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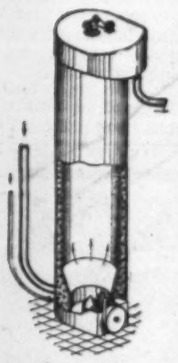
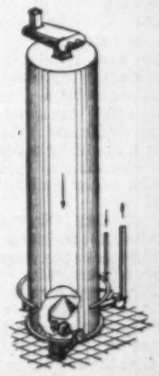
FIRST with continuous low density upflow chlorination tower

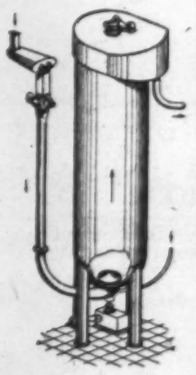


Invented by KAMYR in 1934



Invented by KAMYR in 1939

FIRST with today's standard continuous high density downflow tower



Invented by KAMYR in 1953. Patent applied for

FIRST AGAIN with new continuous high density upflow tower

Over 50 units now ordered... Many now operating!

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Kamyr Equipment is exclusively sold and manufactured in the U.S.A. by The Sandy Hill Iron and Brass Works, Hudson Falls, N.Y.

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AGENTS FOR ALLIED VAN LINES

SCIENTISTS foresee whole new industries developing out of pulp and paper byproducts not now used. One of the biggest possibilities is in the field of chemicals.

Sloan Report Guides Future Of B. C. Pulp, Paper Industry

Special Correspondence

VANCOUVER — Chief Justice Gordon Sloan has presented British Columbia with a new blueprint for administration of its $600 million forest industry.

As the sole member of a Royal Commission appointed to enquire into B. C.'s forest resources, the chief justice presented his first report 12 years ago—this is his second.

Legislation resulting from his recommendations created the revolutionary and controversial forest management license system.

His new report indicates that, generally speaking, the forest management system has been working pretty well, but there are places where it might be advantageously tightened up.

He criticizes the government for its lack of a firm policy in determining who should be granted licenses and warns against continuance of conditions which might encourage discrimination and "pressure" in the allocation of licenses.

He recommends:

- The government should acquire, for about $108 million, the important 3,000 sq. mile forest area known as the **Esquimalt & Nanaimo Railway** belt as a means of rounding out the lands available for licensing on Vancouver Island.

This would be of special advantage to some of the smaller, independent loggers who have complained of being "frozen out" by the big companies.

Now, with the E. & N. belt in the hands of the **CPR** subsidiary, there is no commitment to maintain sustained yield of timber or otherwise practise sound forestry there.

- Appointment of a board or commission that would be strictly advisory to the government, but which would serve as a "channel of communication," between outside authorities, the government and forest service.
- No more licenses in perpetuity should be granted. All new licenses should come up for review after 21 years from date of issuance and be dealt with according to conditions then pertaining.
- Twenty-one existing applications for forest licenses should be granted, but new applications should be discouraged during the next five years.

However, exceptions are made in the case of **Powell River Co.**, **Crown Zellerbach Canada** and **Canadian Forest Products**—major companies with large investments in plant which have extensive areas of forest ready for allocation into the licensed areas—along with adjacent timber from government holdings.

- Some licensed areas are larger than justified by prevailing conditions and a re-survey should be made to determine whether boundaries in some cases should be trimmed.
- Another enquiry should be undertaken within 10 years.
- A higher economic status for the forest service is also urged.

In his criticism he says:

"In a case where valuable natural resources are to be awarded by selection rather than by competitive bidding, selection should be based upon clearly expressed government policy.

"In my opinion, not sufficient distinction has been made in the award of management licenses between those whose services to their community have justified their selection for a preferred position of security above their competitors and those who are merely shrewd enough to seize an opportunity.

Not Clear

"There has been no clear principle to guide this selection, no set of rules whereby a prospective licensee could assess his own qualifications and know that these qualifications would be recognized by the government and required of him and other licensees on an equal basis.

"Each application is treated on its merits, but a consistent estimate of 'merit' is not apparent.

"Nor have the particular merits which justified each award been made public at the time or since."

The report opposes imposition of new taxes on forest industries and urges that the 1% forest land tax imposed four years ago should be repealed.

It points out that 10 companies hold 75% of the timber subject to this levy and the tax has not had the desired effect of inducing these companies to put their holdings into forest management licenses.

Underscoring the vulnerability of any industry that is subject to world competition, the chief justice said government and industry must be guided by an informed and sympathetic understanding of the "sheer inability (of the forest industry) to stand alone, to alter the ineluctable forces operating in the market places of the world."

Chemicals Aid Paper Industry With Non-Odor Latex Wrap

Chemistry is helping the paper industry meet the competitive challenge of plastic films and cartons, metal foils and cans, which have revolutionized the packaging field in the last ten years.

Dow Chemical of Canada, Ltd., is marketing two-low-odor latexes which, for the first time, can be used by the paper industry to produce low cost, high-quality coated papers for special food packaging uses.

Because of its economy and efficiency, latex has long been accepted as the standard pigment binding in paper coatings by the majority of paper producers and converters. The use of latex results in coated paper and paperboard which are smooth, curl resistant, water resistant, able to fold without cracking and to reproduce halftones and fine print details.

The availability of these low-odor latex binders enables the paper industry to produce such food packaging materials as coated paperboard, opaque bread-wrap and carton sealers, grease resistant paper and paper board, all with improved properties, wider range of utility and at low cost.

This entry into the expanding and highly-profitable packaging field strengthens the position of the paper industry as a producer of the least expensive packaging materials.

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And here are typical results of the checks:

★ A florist, with a keyed number in a half-column ad, received 419 calls in 139 days, eliciting $1,506.00 worth of business. Of this, nearly half was attributed to new customers. And, this flower shop has used no other form of advertising but Yellow Pages for 25 years.

★ A 5-week study of a keyed number for a roofing contractor showed 45 calls in 87 working days, amounting to $1,202.00 in business. And this during an off-season for this type of work.

★ A hairdresser with a keyed number had 384 calls in 161 days. Business resulting from these calls amounted to $1,121.00.

★ A mover with a keyed advertisement received 157 calls in 133 days resulting in $4,116.00 in business.

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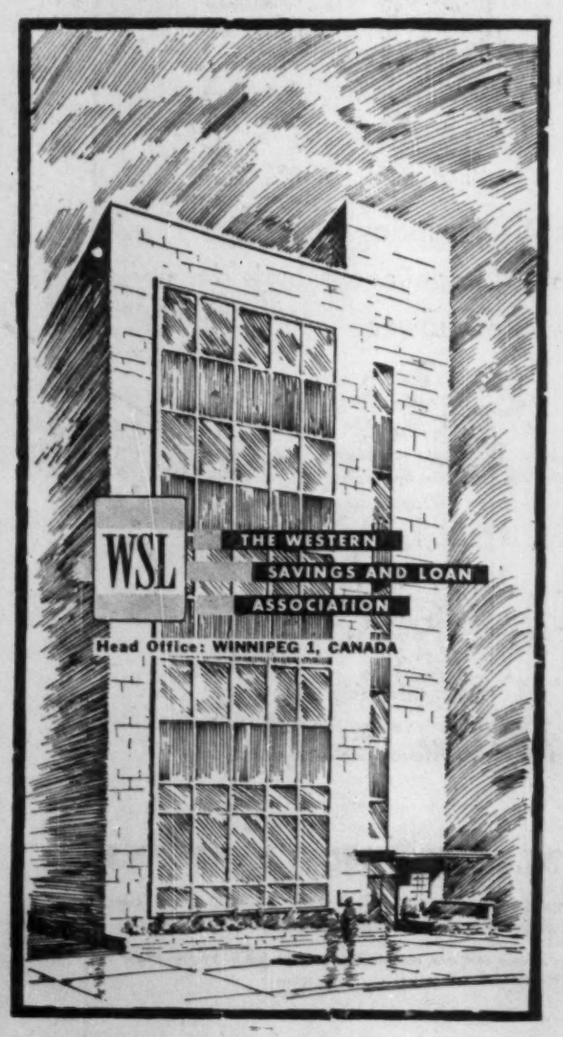
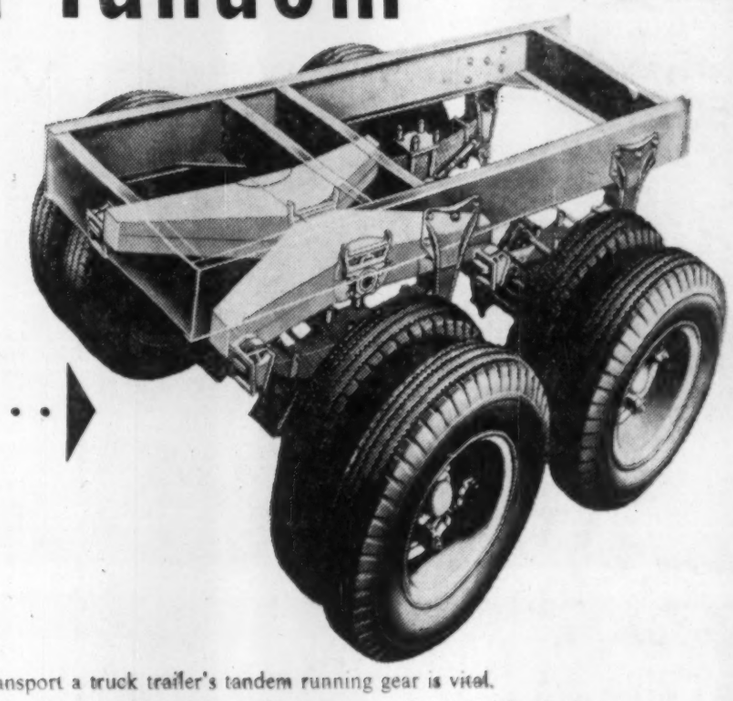


How does your money work?

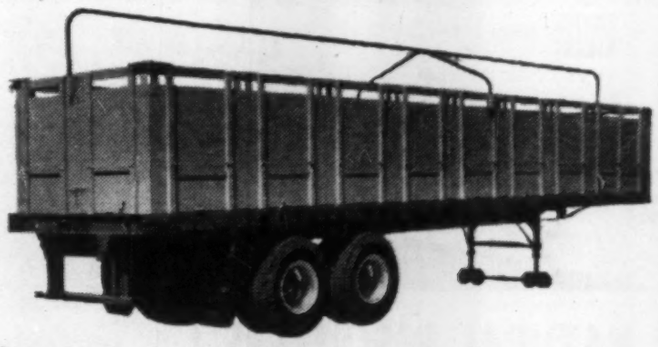
Does your money work well for you? Read The Financial Post regularly for investment news that can help you do better. Follow its weekly feature on mining and oil stocks: facts and rumors behind issues that are moving. Week-by-week reading of The Financial Post gives you news and information that can help you in business and in your personal life.

In Canada: $6 a year; 2 years $11
Elsewhere: $7 a year; 2 years $13

This is a Tandem



In highway transport a truck trailer's tandem running gear is vital.
The Tandem spreads the weight of the trailer over two axles and eight tires. Tandem efficiency affects load stability, tire life, gas consumption and wear of the truck-tractor power unit. The difference between a good Tandem and a poor one can means thousands of dollars in revenue each year.
This is why leading truck firms choose Trailmobile trailers equipped with Trailmobile Tandems. With just two moving parts, two points to lubricate, Trailmobile Tandems have out-lasted, out-performed every other Tandem on the highway.
Ask any cost-conscious fleet operator. He'll tell you nothing compares with the Trailmobile Tandem for reliability, endurance, economy.
It's one more reason why Trailmobile is Canada's outstanding manufacturer of quality truck trailers.



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Here's What Research Means To Growing, Dynamic Industry

The impact of scientific and technological advance in the pulp and paper industry will mean many things to the industry, its personnel, its competitive position in world trade.

Even the most conservative long-term estimates of paper consumption point to dynamic and vigorous growth trends continuing. With advanced technology, it looks like there will be far faster development of new forest products.

With great wood utilization, there will be wider product diversification by the integrated pulp and paper mill with large timber land resources.

To analyze the economic forces that will come into play in the future is at any time difficult. But to meet competition and to chart the course that individual companies will follow is a job that top management team must do.

Such decisions will determine the nature of the profits resulting from expansion and diversification.

Let's take a look at what the picture will mean in various phases of the pulp and paper industry operation.

Management:

With such a highly complex and technologically-based industrial program, they will be largely men of scientific and engineering training. This is already true almost universally throughout the chemicals and petroleum industries. As pulp and paper evolves to become more like them, changes will occur in top management, and greater emphasis will be required in training of such personnel.

Diversity:

The range of products made from the primary pulp will be much greater. Table linen and bed linen in hotels and on ships, trains and planes, and in some homes will disappear in favor of their counterparts made of paper. Many articles of clothing will be made of paper, and sold so cheaply that they will be treated as disposable.

In many homes and in public eating places, disposable dishwear made of pulp will replace china and plastics.

Paper laminated with plastics or other materials will be playing a large role as materials of construction; and improved corrugated boards will be common in raw materials for furniture manufacture.

But the primary pulp and paper will really only be by-products of a very extensive and complex chemical processing operation. The day that the chemists have long predicted when the values produced from what are now wastes would exceed the value of the cellulose will have arrived.

Pulp and paper companies will have changed to chemical companies — some by building chemical divisions which become a dominant division, some by merging with chemical companies and some by being absorbed in the structure of large chemical concerns.

Since the emphasis will be on complete utilization and recovery, there will be no longer pollution of either the air or the water.

Quality and uniformity of production:

Continuous operations in chemical pulping will bring with them much improved uniformity because of the smaller quantities of material being treated at any instant and the much closer control over conditions. The shortened exposure of the cellulose to degradation by the reaction of chemicals will mean a higher quality product.

Quantity of available wood:

Operation of the industry at many locations now considered inaccessible will multiply the supply of wood.

Hardier strains, developed through breeding, and shorter growth cycles induced by carefully applied nutritional and genetic measures will be characteristic of the new silviculture.

Location of the industry:

Freed by the packaged nuclear power reactor from dependence on proximity to hydro electric stations or field transportation lines, new mills will be scattered more widely across the nation and located close to the sources of wood.

Distribution systems:

Canada, like the U.S., will be criss-crossed with a network of pipelines, not only for the distribution of enormous quantities of natural gas and petroleum, but also for the distribution of solid particles in pneumatic or hydraulic systems.

The chief difference will be that many of these will not be permanent installations of steel, buried in the ground beneath the frost-line but they will be of corrosion-resistant plastic covered with insulation and laid across the countryside as one may now lay his plastic hose across the lawn.

Here and there, high-speed cableways, powered by cheap nuclear plants will carry heavy, large, bulky materials such as rolls of newsprint or bales of pulp.

On some of the waterways there will be a steady stream of floating barges or large bags made of rubber or plastic moving down to the present-day mills and containing chips or other forms of sub-divided wood from the forest. These will replace the floating and rafting of logs.

This will eliminate the individual handling and rehandling of single small sticks of pulpwood, the costly procedure characterizing eastern pulpwood operations today.

Capital plant costs:

Advent of high-speed, continuous chemical pulping at atmospheric pressure will mean that major production can be accomplished with small, compact, semi-portable or even portable equipment.

A major cost of the new mills will be electronic instrumentation and control because the pulping process will occur so rapidly.

Similar results can be expected with respect to papermaking operations. Small-scale, high-speed, continuous production with much smaller equipment will be common. Speeds of 3,000 to 5,000 f.p.m. will be general but the huge Fourdriniers will virtually disappear. In many places, the paper making process will also be carried out in the bush.

Operating costs and manpower:

Elimination of the repeated handling of the wood from forest to mill and extensive automation in the manufacturing operations will reduce the manpower needed per ton of cellulose pulp. But the development of an extensive by-products industry and continued growth of the basic pulp industry will result in a gross increase in manpower requirements.

Full Tree Logging Studied, Here's How it Affects Output

Full tree logging is still in the experimental stage in North America but it is increasingly catching the interest of pulp and paper companies.

What is it?

A method of taking the whole tree including limbs, tops, etc. from the stump where it is felled to a central point. There the limbs and tops are removed and the remaining part of the whole cut into bolts and packaged for further handling and hauling to the mill.

The difference from conventional methods:

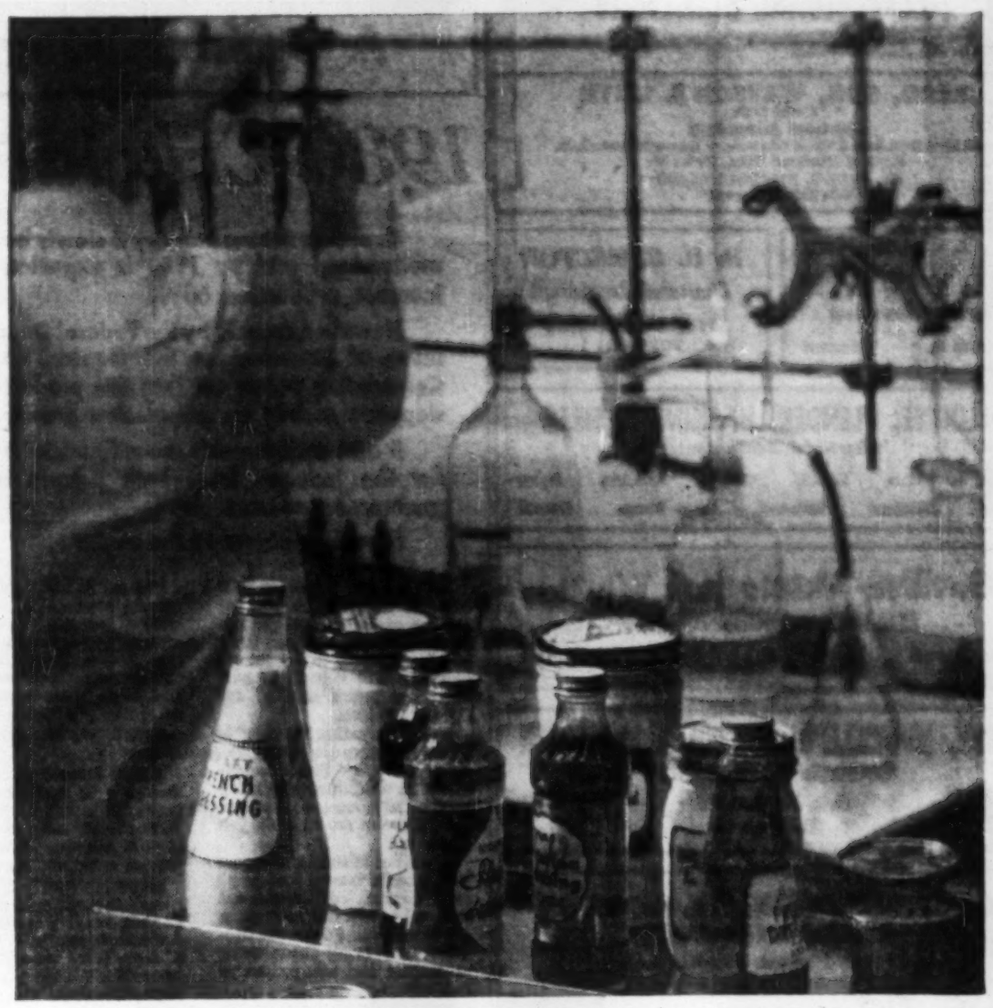
The whole tree is taken from the stump instead of leaving the limbs and tops at the felling site.

One major problem in mechanical barking is the inability to feed the machines at a capacity so that they can bark to get the highest possible output at the lowest barking cost.

Full tree logging envisages one machine capable of traveling through the woods without roads, felling the trees within its radius and bunching them in a pile of perhaps five cords.

Another machine quickly picks up such a bundle and makes off through the woods with it to the landing. A manipulator then lifts the trees one by one and feeds them through a processing machine which delimbs, debarks, slashes, scales and marks the bolts and conveys them onto a truck or down a chute to a lake.

Thus with a small number of men, none of whom have to be on the ground and all of whom could be in protected cabs so they can work in all weather, all-year-round pulpwood could be produced.

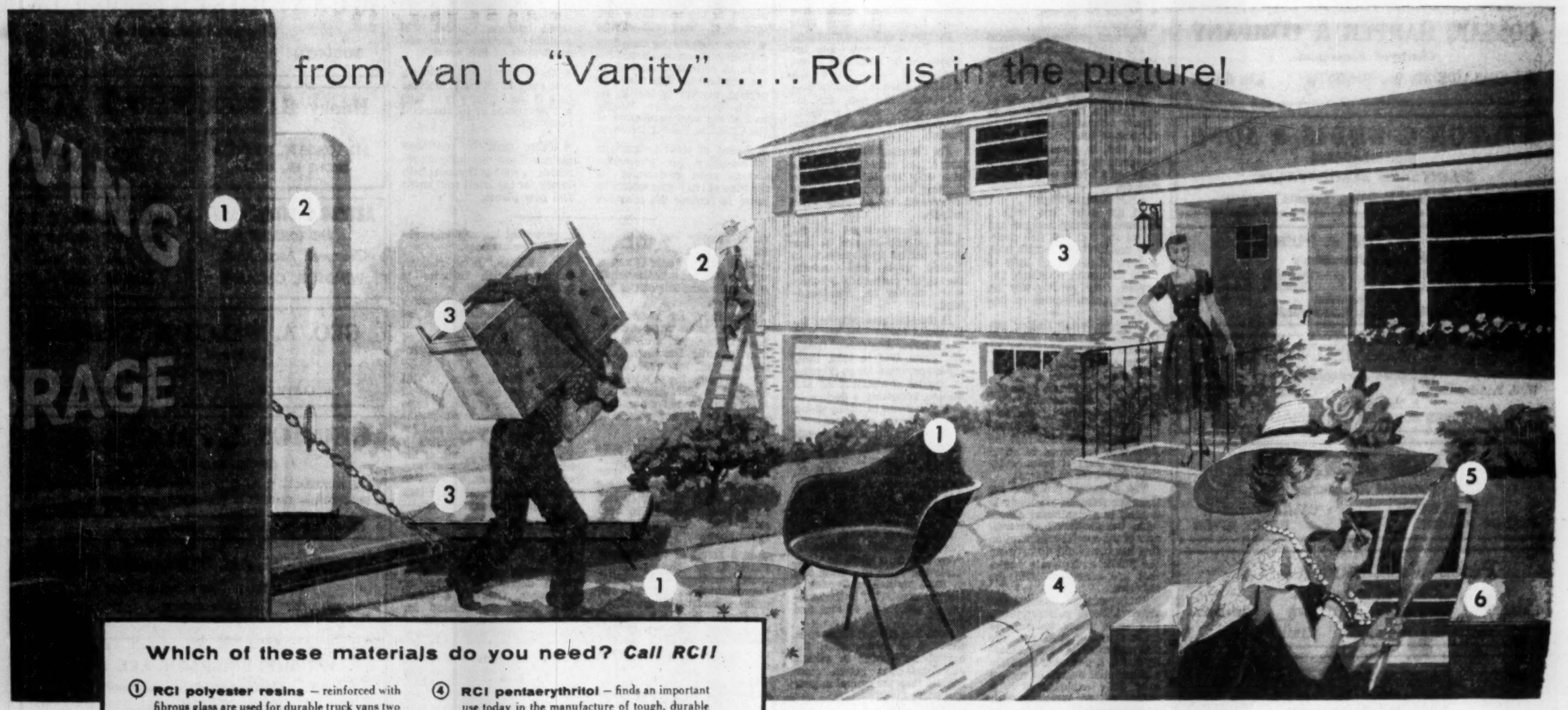


Urgent—by Air Express, $3 worth of groceries!

What have these to do with Air Express? It's simple. These samples of famous Kraft products have been checked in the laboratory of Kraft's Montreal factory, where they were made. Now they are to be sent to Kraft's central laboratory for double checking. By this means, Kraft ensures an unvarying standard in products made in factories all over the continent. Shipment must be swift—that's where Air Express comes into the picture. Fast, dependable Air Express gets your package there on time, *in the shortest time.* Your Air Express office is open to serve you 24 hours a day, the year round . . . is standing by to pick up or deliver, *now.*

AIR EXPRESS

TRANS-CANADA AIR LINES



Which of these materials do you need? *Call RCI!*

① **RCI polyester resins** – reinforced with fibrous glass are used for durable truck vans two to three thousand pounds lighter than comparable metal vans. Other RCI polyesters can be used for colorful modern chairs and easily-cleaned lampshades.

② **RCI surface coating resins** – are used internationally by leading paint manufacturers to formulate finishes ranging all the way from refrigerator and auto enamels to exterior house paints. Latest addition to the extremely complete RCI line is a series of new melamine resins which give many improved properties to baking enamels.

③ **RCI resin adhesives** – include "hot press phenolics" for water-resistant bonding of exterior grade fir plywood . . . and polyvinyl acetate and urea-formaldehyde furniture glues.

④ **RCI pentaerythritol** – finds an important use today in the manufacture of tough, durable linoleum coatings.

⑤ **RCI formaldehyde** – like other RCI basic chemicals is important to a tremendous range of industries . . . for tonnage uses and for specialized jobs (waterproofing straw hats and silvering mirrors, for example). RCI's network of plants and warehouses is geared to fill the needs of any user, large or small.

⑥ **RCI phenolic resins** – are widely used in filler sheets for laminated plastic tops on vanities, tables, counters . . . in molding compounds for plastic furniture drawers.

The next time you have a supply problem (or a technical one), see where fast delivery of these quality-controlled RCI materials (or any of those listed with our signature) can help you.

MALEIC ANHYDRIDE—Reichhold produces and sells this important basic chemical; and uses it in making POLYLITE polyester resins. RCI MALEIC is available in pellet form as an added convenience.

GREATER PAYLOADS—Exterior, interior and structural members of this insulated van are made by Strick Co. from reinforced RCI POLYLITE. Reichhold operates 3 of these weight-saving vans.

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A Gordon Royal Commission Study

1980 Crucial Year for Fisheries

Canada's fishing industry is slowly being modernized and by 1980 is expected to increase production 60%.

However, a study by the Federal Department of Fisheries for the Gordon Royal Commission points out that this production depends mainly on population growth.

It also recommends more financial help for the industry from both private and government sources.

Here is a digest of the study.

The degree to which the fishery resources of this country will be exploited, and the extent to which capital and labor will be attracted to the fishing industry, will depend in part upon the future demand for fishery products.

The qualification "in part" is introduced because of the distinct possibility that developments in the future may bring substantial changes to the present pattern of sea and lake fish utilization.

Increased leisure and growing incomes may divert some fisheries from commercial use for food production to angling for recreation. Power requirements may bring about water utilization that will reduce or destroy certain fish populations.

This report is the 14th of an FP series which will sum up each of the special studies made for the Gordon Commission.

The fishery resources available to industry in Canada are extensive and abundant.

Major Market

As a first step in considering future demand, it can be assumed that the population of North America will continue to dominate the marketing situation, perhaps to a greater extent in the future than at the present.

The future demand for fishery products depends largely on two major factors:

- Popula ion growth.
- Disposable income.

For most products consumed in any volume in Canada, there appears to be a fairly good correlation between population and consumption.

The economic prospects of the fisheries seem likely to be closely related to prospects in the rest of the Canadian economy and, to some extent, to prospects in neighboring countries with which trade is carried on.

Remain High

At the same time, with a buoyant economy, demand and prices for fish and fish products are likely to remain high and be attractive at least to those fishermen who have improved their productivity by utilizing more capital in this way.

However, many fishing settlements may remain relatively isolated from the economic development in the rest of the economy.

In these areas, economic prospects may remain poor, even with relatively favorable fish prices, unless special measures are taken to encourage the fishermen concerned to attain a higher level of productivity than they have at present.

The economic prospects for Canada's fisheries are likely to depend to a significant degree upon the continued effectiveness of the special collaboration that has been built up between the public and private bodies that are concerned with the fisheries.

This special relationship has arisen because fish resources, like some other natural resources, are of such a nature that governments have ordinarily found it desirable to retain a substantial degree of control over their exploitation as a means of encouraging their most effective use.

Firstly, private control of these resources is difficult, because of the natural obstacles to establishing and maintaining the fixed boundaries necessary for such control.

Secondly, the fish resources themselves are mobile and not naturally fixed in location as are, for example, the forest, land and, to some extent, oil resources.

As a result, they cannot, ordinarily, be effectively enclosed or separated off into exclusive areas suitable for private exploitation.

Thirdly, a large part of the fish resources is located in waters, international waters, over which exclusive control is not exercised by anybody, public or private.

In recent years a number of countries have voluntarily agreed to a degree of joint control over certain fish resources, chiefly outside territorial waters.

Because of these obstacles to private control, fish resources, with a few minor exceptions such as oysters, are ordinarily exploited as a common-property resource under public control. Such use-in-common will not ordinarily lead to the most effective exploitation of resources.

This is because there is little incentive to maintain or improve the resource when other users-in-common will gain most of the benefits from such private conservation.

There are nearly 30,000 primary fishing enterprises in Canada, ranging in size from a one-man operation to divisions of large firms operating fleets of vessels. The assets or capital stock of the industry are valued at approximately $124 million.

The primary industry's labor force totals about 75,000 fishermen, probably not more than two-thirds of whom are dependent on fishing as a major source of income.

Under these conditions, the investment per person employed in fishing varies from as little as $500 in a primitive inshore operation to probably $15,000 on, for example, a modern deep-sea dragger.

Incomes from fishing show a similarly wide variation: from an annual average net of about $250 for a shareman in the small-boat fisheries of Newfoundland and Quebec to one of $5,000 or more for a skipper of an Atlantic Coast dragger or Pacific Coast purse-seiner.

In the primary industry, capital investment in Canada except Newfoundland (and excluding operating capital) has more than trebled since 1943.

By 1954 it exceeded $106 million. Probably half this increase can be attributed to expansion of values through inflation. Even in constant dollar terms, however, the increase in investment probably exceeded 50% over the 11-year period.

For Newfoundland, dependable capital estimates are available only for 1954, but these indicate the primary industry investment to be over $17.5 million.

Almost two-thirds of the fixed capital invested in primary fishing in Canada is in fishing boats and vessels, though the proportion is somewhat smaller for Newfoundland.

In the Maritimes, most of the increased investment has been in the larger draggers or trawlers. From 1946 to 1953, these types accounted for an increase in capital investment of $7.2 million, offsetting a decline in the investment in 10- or 40-ton vessels, mostly schooners.

At the same time, the investment in small boats, under 10 tons, fell by more than $3.4 million to $19.3 million. In B. C., major investment emphasis in this recent period has turned toward diesel-powered vessels of 10 to 40 tons or more.

The number of such vessels increased in that province by over 260 from 1946 to 1953, while the value rose from $6.8 to $22.2 million, reflecting a large increase (87, in the number of vessels of 40 tons and over.

With this general increase in the size of fishing craft the capital investment in vessels and boats has grown more rapidly than the capital in gear and shore facilities.

While capital invested in gear and shore facilities has increased steadily in Canada (excluding Newfoundland) since the late 1930's — from $11.8 million in 1939 to $34.2 million in 1953 — it has increased at a much slower rate than that for fishing craft.

Recent tendencies for fishermen to establish their base of operations in larger settlements and to use larger vessels have greatly improved the possibilities for flexibility in this respect, and some of the concentration of processing permitted by these developments has already occurred.

For all fish processing firms, working capital appears to comprise nearly two-fifths of the total capital investment. In 1952 and 1953, an estimate of capital based on the reports of fish firms for corporation tax purposes indicated a ratio of approximately 2 to 3 between working and fixed capital.

Working capital averaged $47 million per year while fixed assets (land, building and equipment) averaged $76 million for a total of $123 million.

These data probably underestimate total investment by as much as 20% or more, though the proportions of working and fixed capital may be reasonably accurate.

In other words, $150 million may be close to the total capital invested in processing, with fixed assets providing probably $90 million and working capital $60 million.

It has been necessary for both federal and provincial governments to provide financing to enable the primary industry to break away from its small-boat, low-productivity environment.

Some progress has been made already but much remains to be done during the next 25 years. There is now a well-established organization to guide and assist this capital improvement.

Loan funds for vessel construction and improvements have been established in all four Atlantic Provinces. The Fisheries Improvement Loans Act, set up by the federal government in 1955, provides for loans up to $4,000 for purchase or repair of fishing vessels or equipment.

In some cases a federal subsidy is provided to assist individual fishermen in the construction of an efficient fishing vessel. Risks of capital loss have been reduced by the small-boat insurance plan noted above.

As a result of the stimulus provided by this program, there has been a substantial improvement in capital in the primary industry on the Atlantic Coast. With the groundwork thus laid, the further capital development needed may proceed at a more rapid rate.

That will, of course, require a corresponding increase in the supply of loanable funds and it seems likely that the provinces may be increasingly called upon by fishermen to supply this credit.

This growing demand for credit may become difficult for the provinces to meet.

More Concerned

At the same time, there is evidence that provincial governments are becoming more and more concerned with the difficulties being encountered by processing firms in financing development in the Atlantic Provinces.

Newfoundland and Quebec have gone farthest in meeting the demand for special credit facilities. In Prince Edward Island and New Brunswick considerable assistance and direction have also been supplied.

In Nova Scotia, where the industry is long established, proportionately less direct assistance has been given.

It seems likely that contributions by government to the financing of processing development will continue and expand in the Atlantic Provinces — in the expectation that these injections of capital will eventually enable all branches of the industry in this area to reach a level of productivity that will support, within the next decade or two, the financing of new investment automatically from funds supplied by the firms themselves.

In the fisheries, as in most industries, the level of employment is a function not only of earnings but of the other social and physical conditions prevailing in the industry.

In the fishing industry, in the Atlantic Provinces particularly, and to a lesser extent in B. C. and the inland area, employment is commonly subject to low earnings.

In addition, in all regions, employment in fisheries is ordinarily marked by much seasonality, isolation, primitive equipment, uncertainty of catch and income, physical hardship and risk and limited social and other cultural opportunities.

As a result, there is still much poverty and privation and these are ordinarily combined with concealed unemployment; productivity and incomes are low; education is limited; and opportunities for higher-paid employment are, commonly, either unavailable or unobtainable owing to lack of training or experience.

Larger Cuts

The substitution of capital for labor should enable the marketable catch to be taken by a decreasing number of fishermen. Over-all it seems likely that the demand for labor in the primary industry may be significantly reduced during the next few decades.

The movement out of the fishery has been quite marked since 1946. With economic activity in other industries in a buoyant state since World War II, opportunities for employment outside the fisheries have been excellent.

This movement out of the fishery was particularly conspicuous in Newfoundland where, from 1947 to 1954, an estimated 38% of the fishermen appear to have taken up other employment.

In the case of the other provinces, changes in numbers have been more moderate but, aside from the war years, a fairly clear downward trend seems evident. On the basis of the period before 1941 (1937-40) and after 1946 (1947-54), the trend is fairly steadily downward at an average rate of 1,000 fishermen every two and a half years.

If this average rate of decline continues — and it appears to be fairly reasonable and moderate — the number of fishermen in Canada, excluding Newfoundland, will be about 16% lower in 1980 than in 1954.

Report's Suggestions

Here are some of the Gordon Commission's predictions for Canada's fishing industry, as given in the interim report. (FP, Jan. 19.)

- The number of Canadian fishermen will decline. By 1980 it is estimated that the total number of fishermen will drop by about one-sixth. However, total production is expected to increase some 60% because of rising productivity.
- Main markets for Canadian catches will remain abroad despite an estimated increase in the population. The most important market is the U. S., which today absorbs nearly half of the total production of the Canadian fishing industry.
- Easing of tariff restrictions is necessary for prosperity. Canada must re-examine its doctrine of territorial waters in order to remove the inconsistencies that have been created by the vagaries of history, with the result that in one area, for instance, foreign vessels may operate nearer the coast than Canadian vessels.
- Bigger ships, new mechanized processing plants are expected to cut out many smaller fishing centres for larger centres which will in turn increase the average income. However, small secluded places will probably survive where seasonal gluts of fish occur.
- Government and industry will have to give considerable help if the industry is to take full advantage of its abundant resources.
- There must be continued biological and technological research as well as financial help to pay for the latest equipment and new plants.

Estimated 1980 Needs

Product	Product weight million lb.	Round weight million lb.
Fresh and Frozen, round, dressed		
Salmon	65	78
Halibut	36	49
Lobster (in shell)	44	44
Smelts	7	7
Pickerel	29	29
Whitefish	31	35
Lake Trout	8	9
Fresh, Frozen, filleted		
Cod	152	494
Haddock	57	170
Flatfish	31	114
Redfish	17	69
Lobster (meat)	3	13
Salted, Dried	106	424
Canned		
Salmon	108	190
Herring (incl. Sardines)	19	45
Tuna	5	10
Meal	72	360
Total	NA	2,140

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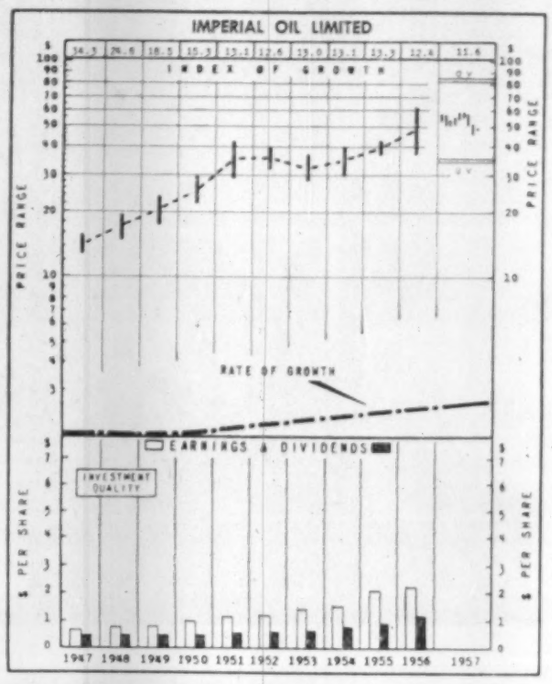
Selected Growth Stocks

— Quarterly Review —

By NESTOR

This exclusive FP series of Selected Growth Stocks was chosen by one of the continent's most prominent and successful investment advisers. The reasons for choice shown below the accompanying charts were those given when stocks were chosen in January, 1953. Each will be reviewed quarterly. This series in FP does not constitute a recommendation to buy these stocks.



Imperial Oil

Imperial Oil Ltd., trading at recent $46¼, is 28% above UV level ($36), has room to rise 77% before reaching OV level ($82). Price is 21 times 1956 earnings of $2.20 per share. At indicated annual dividend rate of $1.30 per share, yield is 2.81%. Price in 1957 has ranged between high of $60 and low of $44½.

Net profit in the first six months of 1957 was $37.7 million or $1.19 per share, an increase of 11.6% over first-half 1956 earnings of $33.7 million or $1.12 per share.

Crude oil runs at refineries averaged 279,947 bbl. per day in January-June, 1957. This was 13.7% higher than the comparable 1956 production.

Net crude oil output rose 6.1% to 104,435 b/d in the first half, compared with 98,424 b/d a year earlier. A 6.5% increase brought product sales to an average of 279,015 b/d.

Exploration, operating and administrative expenses in the first six months of 1957 totaled $95.8 million. In last year's first half, they amounted to $84.3 million.

A reduction of half a cent a gallon was made in July in the price of light fuel oils, including furnace and stove oil, kerosene and diesel fuel, to company's customers in the Atlantic provinces, Quebec and most of Ontario. It also applies to customers in the Lakehead area who are normally served by Sarnia, but not those receiving their light fuel oils from the Winnipeg refinery.

The cut was attributed largely to a lowering of world tanker rates and to declines in wholesale prices in some areas of the U. S.

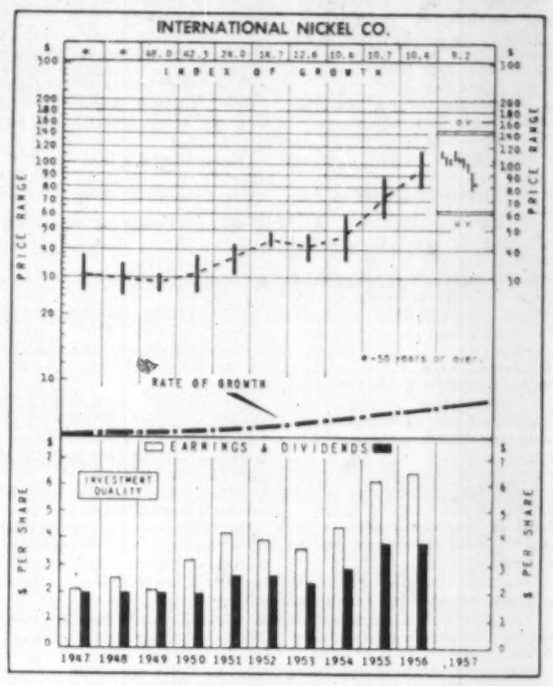
The Imperial Quebec, largest of company's 16-tanker fleet, was recently launched by **Canadian Shipbuilding & Engineering Co.** at Collingwood. Ship will carry oil products from Sarnia to Great Lakes distribution terminals, and will be able to go into deepsea service when the St. Lawrence Seaway is completed.

The 375 ft. Quebec cost some $2.5 million, has 52 ft. beam, 22 ft. draft, and capacity of 49,500 bbl. Loading and discharging rate is 7,000 bbl an hour, and cruising speed 12 knots.

Work is proceeding on schedule on the new $28.5 million petrochemical plant at Sarnia with completion set for mid-1958. It will convert materials received from company's refinery into such basic chemicals as ethylene, propylene, normal butylenes, isobutylenes, butadienes, aromatic distillates and tars.

Company's detergent alkylate plant at Sarnia is to come into production shortly. Yearly capacity is 30 million lb. of dodecyl benzene, which should make Canada self-sufficient in this chemical.

IMPERIAL OIL — Imperial's outstanding record for oil discovery in Western Canada, its large reserves, and its continuing exploration and expansion program promise, along with the continually growing demand for petroleum products, to maintain the company's position as Canada's largest and most fully integrated oil company. Last year's profit was nearly double the 1951 net.



International Nickel

International Nickel Co. of Canada, at recent market price of $78, is 26% above UV level ($62), could rise 79% before reaching OV level ($140). Price is 12 times 1956 earnings of $6.50 a share. On basis of indicated annual dividend rate of $3.75, yield is 4.81%. Price in 1957 has ranged between a high of $111 and low of $76.

First half earnings this year were equal to $3.12 per share (U. S. funds), down from $3.48 in the first six months last year, which was a record high in half-yearly earnings for the company. Earnings in the last half of 1956 were equal to about $3.02 a share.

Second quarter earnings were $1.51 a share compared with $1.61 per share in the first quarter this year and $1.69 in the second quarter last year.

Inco's working capital as of June 30 this year was $261.9 million, down from $270.2 million at the same date in 1956.

Lower copper prices, cost of a strike at the Huntington Works in West Virginia, and reduced deliveries of platinum metals were special factors affecting first half results this year, according to the company.

However, these factors and continuing cost increases were partially offset by higher prices for nickel and mill products, and by higher copper and nickel deliveries.

Capital expenditures in the first half this year totaled $20.9 million, against $11.9 million in the same period last year. Chief reason for the increase was cost of development of company's Mystery-Moak Lake mine project in Manitoba, and of expansion in the Sudbury area.

The Manitoba project, scheduled for completion in 1960, is expected to bring company's annual nickel production capacity to 385 million lb., and world capacity to about 650-675 million lb. This is a 130% increase over annual world capacity in 1951.

Supply and demand in nickel are coming closer to equilibrium faster than had been expected, said Inco Board Chairman John F. Thompson recently. Task facing all producers is to develop larger markets for this expanding production.

Pointing out the company's "long and successful" experience in developing new markets for nickel, Dr. Thompson says Inco will accept the challenge of developing further permanent and profitable uses for the metal.

There will be over 75% more nickel available for civilian use in 1961 as against 1956, assuming constant defense needs and no stockpiling in 1961, it is estimated.

INTERNATIONAL NICKEL — Company produces more than 60% of the free world's nickel output. Development of properties in Manitoba should assure maintenance of this rate and, along with other expansion, will increase mining capacity by 35%. Uses for nickel are expected to widen substantially when additional supplies are available, suggesting long-range upward trend in this company's profits.

How to Read Nestor's Special Stock Charts

INDEX OF GROWTH: The rate at which the value of the equity behind the stock is doubling as determined by the growth rate at which it entered the year. A figure of 5.6 for the present year would indicate that at its current growth rate the equity value is doubling every 5.6 years.

PRICE RANGE: The annual high, low and mean price. Monthly ranges for the current year.

UNDERVALUATION AND OVERVALUATION PRICE LEVELS: Shown by the narrow horizontal lines above and below the stock's price range indicating price at which the particular stock is adjusted as underestimating or overestimating its future rate of growth. A stock showing a fast-growth rate will sometimes anticipate growth by two or three years. In this case it may not be so attractive a purchase relatively as some other fast-growing stock that is not anticipating its growth beyond the immediate present. Other factors such as rate of growth and investment quality will also enter into the comparison an investor will want to make.

Without these UV and OV levels, a current quotation of say, 55 or 75 would carry no significance regarding long-range value. The UV/OV levels also permit judgment as between one stock and another. They are not designated points of purchase or sale nor do they attempt to show what will be a stock's bottom or top figure in any given year.

RATE OF GROWTH: The rate as based on Nestor's tests at which the company is showing underlying or long-term growth. This will determine the price trend of the company's common stock over a period of years and in most instances the trend of dividend payments.

**Background and principles behind the selection by Nestor were discussed in a special article in FP, Jan. 19, 1953. A limited number of reprints are available on request.*

U.S. RELATIONS

Canada Manhandled During '57 Congress

Special Correspondence

WASHINGTON, D.C. — Congressional knife-throwers stabbed Canada a couple of times in the 1957 Session of Congress but most of the knife-throwing went wide of the mark.

Probably the worst blows were on the Norman case and on renewal of the U. S. give-away farm surplus law.

Even in the case of the late Canadian Ambassador Herbert Norman, the Senate Internal Security members and staff pulled in their bruised horns after a verbal pummelling from Canada, the state department, the White House and innumerable other senators.

On Public Law 480, however, we're in for more trouble. Its one year renewal authorizes U. S. to go on making the surplus deals about which Canada has complained so frequently.

In addition, another $1.3 billion was tossed into the kitty to be spent on the disposal deals. Chances are when the legislation ends next year, another one year extension will be granted.

Another blow was the okay given to Agriculture Secretary Ezra Taft Benson to make barter deals behind the iron curtain.

Mr Benson has been looking on enviously as Canada developed a market in the eastern European countries and now he has Congressional permission to carve into this market, presumably with more generous deals than Canada has offered.

More bad news came late in the session when a group of Congressmen began pushing for high tolls on the St. Lawrence Seaway. This is a fight that will develop more in the coming months.

Happy Side

On the happy side of the ledger, however, the Senate finally okayed a bill to allow U. S. to pick up its end of a 50-50 bargain made with Canada in 1950 for power development at Niagara Falls.

Various bills for tariff changes, alteration of the Tariff Commission and imposition of an import quota system instead of tariffs all died before they had more than a breath or two of Congressional air. They were introduced largely for "the folks back home."

One of the sharpest defeats for President Eisenhower was the Canada-backed Organization for Trade Co-operation which would act as an administrative arm for GATT. This year OTC failed to get off the ground and wound up on committee shelves in the House and Senate.

The real drive against Canadian interests this past session was centred on two points:

- The "Chicago water steal."
- Lead and zinc import duties.

The "water steal" proposal to take an extra 1,000 cu. ft. per second out of Lake Michigan and feed it into the Chicago Sanitary District looked like a sure winner this year.

It had somewhat tenuous White House backing, and powerful Illinois support.

Eisenhower has twice vetoed the proposal because Canada objects vigorously that the diversion would lower the levels of the Great Lakes thereby costing Canada millions of dollars in power and shipping losses.

In his veto last year, Eisenhower, obviously fed up with the situation, ordered the state department to make a deal with Canada on the matter.

Negotiations dragged on during the 1957 Session of Congress, but finally broke up without a deal. The state department then urged against the diversion.

Time Problem

The urging, however, was less vigorous than in recent years. Time was late, however, and the "water steal" proposal went down the drain in the frantic rush of the dying days of the Session.

It will come up again early next year, however, and Ottawa will have another battle on its hands.

The lead and zinc proposals for higher import duties was the ultimate in Congressional-Presidential confusion.

After pressure from the domestic industry, Eisenhower agreed to violate his own principle of liberal trade and urged a much higher, sliding scale of import taxes on lead and zinc. This would hit Canada hard, especially B. C.

The industry said the Eisenhower proposal was not enough and proceeded to muster enough votes in one Senate committee to have the committee recommend even higher rates.

With all the hue and cry, Eisenhower then said maybe his original idea wasn't so good after all and that there should instead be the normal Tariff Commission investigation.

And this is what now will happen, and will take several months. The whole thing, however, is bound to come again next year.

Also on the happy side of the ledger for Canada at the 1957 session was the president's decision, in the face of Congressional pressure, to order voluntary import controls for oil.

However, he exempted Canadian oil.

On a related matter, there was the beginnings in this past session of a Congressional campaign to influence the Federal Power Commission against granting permission to Tennessee-Midwestern to import natural gas from the trans-Canada gas pipeline.

Most of the noise came from Congressmen from coal-rich states like West Virginia and Pennsylvania.

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You a Business Boor? Check Courtesy Rules

By ERNEST W. FAIR

"Why is business courtesy so rare today?" a company executive asks.

Day after day he gets enquiries from other firms on all sorts of matters.

"It's only one in 100 that ever extends the business courtesy of enclosing a stamped and self-addressed envelope," he complains.

"To my way of thinking, if it isn't worth a self stamped and addressed envelope for that information, it isn't worth my time and effort to obtain the information."

Let's face it, it's so easy, in the midst of today's hurry and routine, to let courtesy slip.

Before we know what has happened pure neglect has created such situations.

Not only executives but all employees can well use a review of business courtesies from time to time.

They should keep handy a check list of the more important ones and refer to it from time to time.

Here's a special FP check list of courtesies. Clip it, send it through all your departments, from managers to office boys:

● **Use self-addressed, stamped envelopes** whenever sending a request for information or data.

This is most important when requesting something for which the other fellow will receive no direct compensation.

● **Respect the value of the other fellow's time.**

Don't ask him to do something (without charge) which takes up a great deal of time and effort.

● **Don't waste the time of individuals** and firms with curiosity inquiries or requests.

Keep your queries strictly to business.

● **Reply promptly or act promptly on requests of others.**

Grant the promptness to others you expect yourself in all business matters.

● **Business exists solely when it makes a profit on what it does.**

It's very poor business courtesy to ask for or expect something free the other firm normally is paid to do. This is one of the most abused of all business courtesies between executives of different firms.

● **Be as clear and definite as you can** when answering requests for information.

Sometimes caution from the legal angle makes an evasive reply proper, but this precaution has little application to ordinary routine.

Nothing is more discouraging than to expect some definite data from someone else and receive sketchy, valueless information.

● **When you cannot grant immediately** a request, you should say so frankly so that the other party can make other arrangements.

It's infuriating to be stalled on business, and then ultimately get no satisfaction whatsoever.

● **Take the time to be friendly.**

Gruff, sharp attitudes may be okay for army recruits, but not in business.

Friendliness is a business courtesy that sets off successful executives and firms from the run-of-the-mill.

● **Avoid pulling the "emergency" lever** unless you really mean it.

● **Let the other fellow know who you are.**

Have you ever wanted to make personal contact with someone immediately after receiving a letter from him with an illegible signature?

If you glory in an unreadable signature, type your name underneath it.

● **When you make a promise in business, keep it.**

● **When you "business borrow" pay back immediately.**

This includes everything from office machines to technical books.

Chances are the other fellow or firm needs them just as badly as you do.

● **Make it easy for the other fellow to supply information.**

Have printed forms made up covering your questions.

It's a lot easier for someone to fill in a form than it is to sit down and write a letter.

Envelopes are the "Trained Seals" of business. They "seal" in your messages and give them a look of importance. When used in the form of Return Envelopes, they keep your prospect's reply confidential. Return Envelopes definitely increase your percentage of returns!

So put two "Trained Seals" to work for your business correspondence or next Direct mail campaign, and make sure of the best possible performance. "Seal" your messages in quality Envelopes and enclose a Return Envelope so your prospect can "seal" in his answer.

Confidentially, it works!

Consult your Envelope Specialist or printer for more facts.

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More Taxes Seen to Help Manitoba Hospital Plan

From Our Own Correspondent

WINNIPEG — New taxes are in prospect for Manitoba — a sales tax, a personal premium levy, or possibly a combination of the two —when the province joins the national hospital insurance scheme.

While there has been no official government announcement the province will enter the plan, Premier Campbell and Health Minister R. W. Bend in a joint statement recently said there would be one shortly.

Neither would admit the statement when it comes will be an acceptance of the Ottawa offer but there is little doubt it will be, perhaps in some modified form.

At the moment Bend is hoping he can persuade the new government at Ottawa to share with the province hospitalization costs of tuberculosis patients and inmates of mental institutions. This is wholly a provincial responsibility and is costing about $4 million a year.

Some months ago the Manitoba Government hoped that if Ottawa would take over half this cost—$2 million—the province could join the proposed national plan without increase in taxes.

When the scheme was first proposed the yearly estimated cost for Manitoba was $20 million of which the province's half share would be $10 million plus an additional $1 million for administration costs.

If Ottawa were to take over $2 million for mental and tuberculosis patients to reduce the Manitoba commitment to $8 million, Bend thought he might get by without disturbing the present tax structure.

Too Hazardous

Closer examination has now convinced him he can't do it, or at least it would be hazardous to try.

The cost by 1960, when the plan would become operative would be considerably higher than the original estimates.

Cost of technical and other help has gone up. So have hospital costs which in Manitoba were substantially increased last April 1.

For example, in Winnipeg General Hospital the current rates for public ward patients are $12.75 for the first 30 days and $10 a day thereafter; $16.25 for patients in semiprivate wards of five beds and $17.25 in wards of two beds; and $21.25 and up for private wards.

These rates are inclusive, in other words there are no extra charges for drugs, operating room or other facilities.

The past two months the Government has had the services of two consultants in Manitoba, Dr. Malcolm Taylor, professor of political economy in the University of Toronto, and George Mowbray, representative of **William Lougheed Associates**, economic consultants also of Toronto.

Dr. Taylor's work has been solely on administrative requirements and Mowbray on the financial structure required to support the plan.

Supplied Data

Neither has made recommendations but both have supplied the Government with data on which to base its own decision.

Their findings have convinced the Government that acceptance of hospital insurance poses one of three courses financially, a sales tax, a premium charge, or a combination of both.

The Government's official announcement of its intention may not be made until there is more information whether Ottawa will accept part responsibility for mental and TB patients.

The province wants to avoid a sales tax if it can.

For this reason the premium plan may be preferred.

Something will depend on the coverage given by the national scheme and whether it is equal to that given by existing voluntary systems.

Bend and his deputy Dr. Morley Elliott and some officials of the treasury branch will attend a conference at Toronto Sept. 9-10.

The meeting will include representatives of provinces which have already accepted the national plan or have indicated a willingness to do so.

Irrespective however of what may be done it may be taken for granted the province will agree to some form of acceptance because the Government will not take the risk of having done nothing in view of the approaching election.

Several cabinet meetings have been held the last two weeks. Some consideration is being given to taking over the administrative setup of the Blue Cross.

Consumers' Gas Gets Another Gas Franchise

Construction of a $750,000 transmission line to serve the town of Lindsay with natural gas will be started in a week to 10 days and gas will be available to homes, business and industry in the area this fall.

The Ontario Fuel Board has given a certificate of convenience and necessity to **Consumers' Gas Co.** to serve the Lindsay area.

The transmission line will be about 30 miles long, running from the Toronto-Montreal section of the **Trans-Canada Pipe Line** to Lindsay.

Work on the Lindsay distribution system, to cost over $600,000, will begin shortly after start on the transmission line.

The pipe, which is manufactured in Welland, Ont., and contracting firms for both the transmission line and distribution system are available.

Music Fair Plans New Centre on QE

A new entertainment centre is to open early in June next year at the Dixie Plaza shopping centre, 12 miles from Toronto on the Queen Elizabeth highway.

The centre, known as **Music Fair Ltd.**, is a $200,000 joint venture of Canadian and U.S. interests. It is an extension of Melody Fair, a similar entertainment centre in the U.S.

It is proposed to set up a 2,000 seat tent-like theatre with a circular stage. Permanent buildings will house offices and dressing rooms. The program, running from June through September, will be selected from recent Broadway musical productions.

Shares for public purchase in Music Fair, Ltd. have been put on the market by **H. B. Gilbert Co.** They are available also in New York state.

Canadian interests are represented by J. A. Renwick, a Toronto attorney, and Bertram Wilkes, a public relations executive in Toronto.

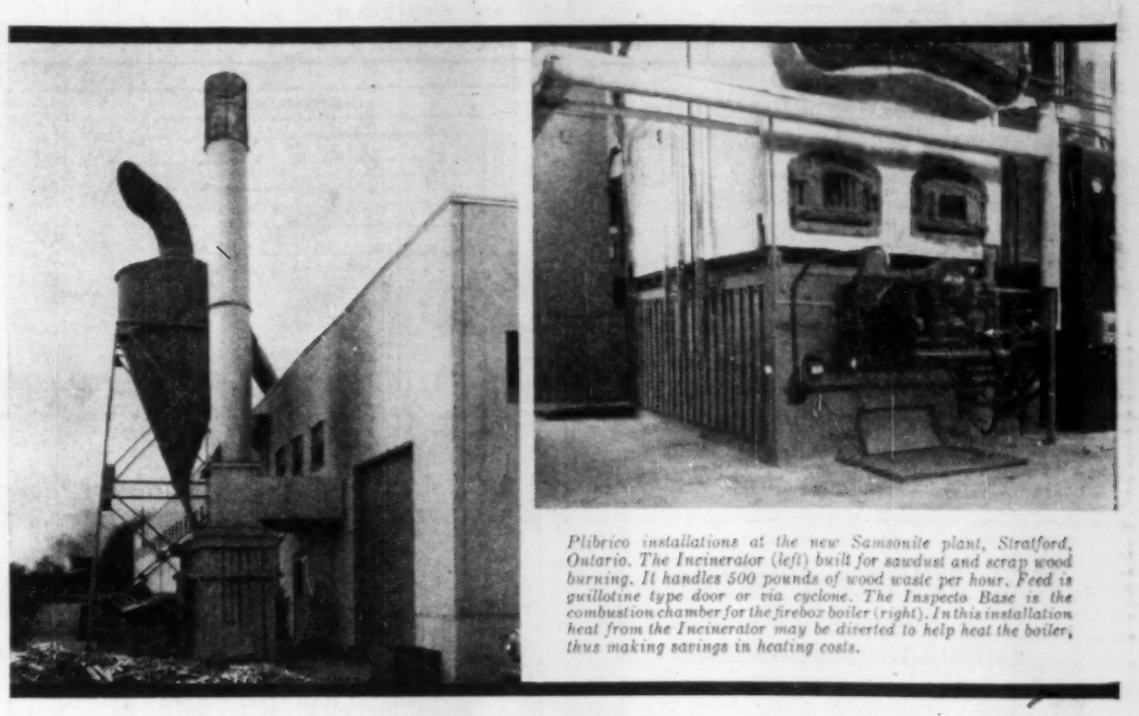
NEW OFFICE

A factory branch office of **Victor-McCaskey Ltd.**, Galt, Ont. has been opened in St. John's, Nfld. The company is a subsidiary of **Victor Adding Machine Co.**, Chicago.

The branch has been established to provide sales and service facilities for users of the firm's office equipment.

Plibrico Marches with Canadian Industry

Incinerator and Inspecto Base help cut costs, increase efficiency at Samsonite



Plibrico installations at the new Samsonite plant, Stratford, Ontario. The Incinerator (left) built for sawdust and scrap wood burning. It handles 500 pounds of wood waste per hour. Feed is guillotine type door or via cyclone. The Inspecto Base is the combustion chamber for the firebox boiler (right). In this installation heat from the Incinerator may be diverted to help heat the boiler, thus making savings in heating costs.

Plibrico is proud of its contribution to the over-all efficiency of Canadian manufacturing and industry. The Samsonite Company, makers of Samsonite luggage, is a good example. This progressive company chose a Plibrico Incinerator as trash destroyer and a Plibrico Inspecto Base for their furnace installation.

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Calumet & Hecla of Canada will manufacture and market seamless copper and copper-base alloy tube in a wide range of types, alloys and sizes—entirely from raw materials produced in Canada. Company policy will be established and directed from the firm's headquarters in London, Ontario and manufacturing and sales organizations will be staffed by Canadian personnel.

The company's new $7,000,000 plant will be the only Canadian tube mill exclusively devoted to the production of non-ferrous tubing. In addition to supplying the Canadian market, the mill will also manufacture tubing for export to world markets. Company products will be known as Wolverine tubing.

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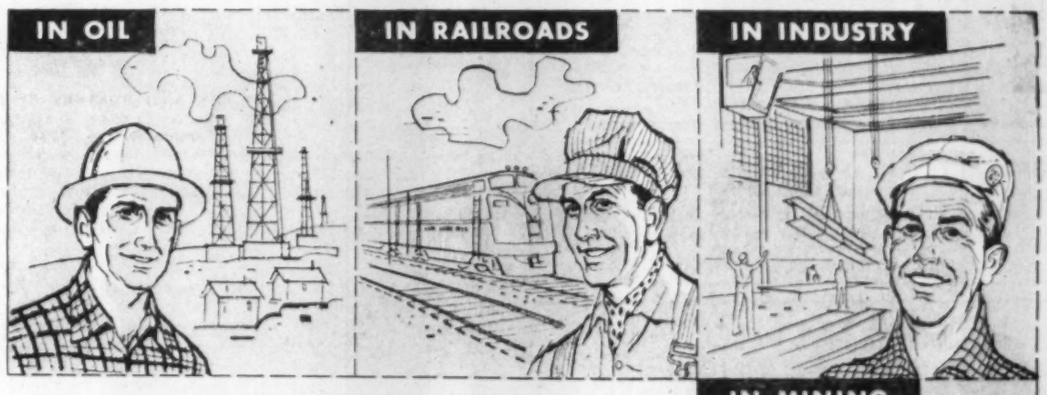

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QUEBEC
Quebec Hospital Service Association
Montreal, E. Duncan Millican, President

ANNOUNCEMENT

H. L. CAMERON

Spartan Air Services Ltd., wishes to announce that Professor H. L. Cameron is now associated with the company's Photo Interpretation Department as a geologist and photogeologist.

Professor Cameron graduated from Acadia University and McGill University in geology and has 20 years' experience in hard and soft rock mining and geology and photogeology. For the past 10 years he has been Associate Professor of Geology at Acadia University and for 8 years was head of the Photogrammetry Division of the Nova Scotia Research Foundation. Professor Cameron has just completed a sabbatical year as photogeologist with the Calgary firm, J. C. Sproule & Associates, Consulting Geologists.

Books for Businessmen

Here's New Canadian Business Study

CANADIAN BUSINESS ADMINISTRATION by Lloyd W. Sipherd, Walter A. Thompson and J. Wettlaufer; McGraw-Hill Co. of Canada, Toronto; 398 pp.; $6.95.

While this is a textbook, compiled by three faculty members of the School of Business Administration at the University of Western Ontario, it holds much of value to the businessman and to the investor as well as to the student.

The study of business administration is still young at Canadian universities—and not much older in the U. S. There has been little time to build up a Canadian teaching literature based on the case method.

In this volume are brought together dozens of original cases drawn from Canadian sources and illustrating business problems in the fields of organization, finance, production, personnel and marketing.

Apart from the cases, the book consists largely of reprints of articles on various aspects of business organization and operation, drawn from such sources as FP, the monthly letters of **Royal Bank** and **First National Bank**, the annual report of **Steel Co. of Canada**, the how-to-invest literature of **Merrill Lynch, Pierce, Fenner & Beane**, and the Investment Dealers' Association of Canada.

GORDON PARK'S PHOTOGRAPH of wild horses in Portugal is one of the most striking of the hundreds of pictures in Life Photographers — Their Careers and Favorite Pictures (Doubleday, Toronto; 89 pp.; $5.75). In the album are represented 40 men and women whose work appears regularly in the picture magazine.

* * *

COME WITH ME TO MACEDONIA by Leonard Drohan; McClelland & Stewart Ltd., Toronto; 344 pp.; $4.50.

Don't be misled by the title—this is no travel book. Rather, it is a highly amusing first novel by a Washington civil servant, about the Washington civil service.

The world of triplicate forms and hidebound routines lends itself admirably to Drohan's style of humor. His wit tends to be subtle and low-key, but it produces plenty of solid laughter.

* * *

RADIATION — What It Is and How It Affects You, by Jack Schubert and Ralph E. Lapp; Macmillan Co. of Canada, Toronto; 314 pp.; $4.50.

This seems to be the first authoritative book for the layman on atomic radiation. It raises and considers such important questions as:

Are H-bomb tests harming people today?

Will they affect future generations?

Can X-rays and radium do harm to the human body?

Are our children subjected to too much radiation?

Obviously, no sharply defined answers could be given, but the scientist authors (Schubert is a noted U. S. biologist and chemist, while Lapp is a nuclear physicist formerly with the U. S. authority) present facts and underline the implications for the future.

The book is fortified with an impressive, authoritative bibliography and a glossary of technical terms. You'll find yourself constantly referring to this glossary.

It is not a frightening book in any way; on the contrary, it puts a finger on one essential point — we are living in the atomic age and therefore we might just as well know something about the dangers of radiation, how to recognize them and what to do about them.

* * *

GLACIER ISLAND by George Sutton; Clarke, Irwin & Co., Toronto; 224 pp.; $4.75.

Little by little, man is reaching out to explore what is left of this world. Here's the record of the mountain-climbing and glacier-hunting British expedition to South Georgia in the Antarctic in 1954-55.

Not a story to interest many businessmen—except, perhaps, so far as the shoestring financial arrangements are concerned—but rather one to evoke admiration in the heart of the desk-bound but still adventure-inclined.

* * *

THE SHIP-BUSTERS by Ralph Barker; Clarke, Irwin & Co., Toronto; 272 pp.; $3.50.

Here's a straight-forward, unglossed story about one of the more hazardous kinds of fighting in World War II: torpedo-bombing of enemy shipping by really low-flying aircraft.

To Canadians who served in the RAF, particularly those who piloted the now-ancient Beauforts, this book will bring back exhilarating this-is-how-it-was memories—and details of such famous attacks as the one on the German capital ship Gneisenau in harbor at Brest.

The writing by Flight-Lieutenant Barker, now with the Air Ministry after 2,000 wartime flying hours, is refreshing in its matter-of-factness, packs a startling punch as a result.

* * *

THE DOG WHO WOULDN'T BE by Farley Mowat; Little, Brown & Co., Toronto; 238 pp.; $2.75.

There is a certain kind of warm devotion that only a boy and a dog can share. A noted Canadian writer tells here of the remarkable dog "of indeterminate breed and eccentric habits" who shared his Saskatchewan boyhood.

* * *

BUCKSKIN AND BLANKET DAYS by Thomas H. Tibbles; Doubleday & Co., New York; 336 pp.; $5.

In fiction, frontiersmen are never called by names like Thomas Henry Tibbles. They must have more dashing labels.

But this book isn't fiction. Despite the fantastic adventures which it describes, it has a feeling of authenticity.

Tibbles was born of a western pioneer family in 1840. While in his teens he fought in pre-Civil War skirmishes over the slavery issue, was captured, sentenced to hang, escaped.

Later he was a hunter in the relatively unexplored West, lived with Indians (Omahas) and fought them (Sioux).

Still later he was a lecturer, newspaperman and politician.

This volume contains his memoirs, written in 1905. They are not the complete story of his life but they are a fascinating commentary on the evolution of the U.S. West.

* * *

HANDBOOK ON CANADIAN LABOR LAW by Alfred Cosby Crysler; The Carswell Co., Toronto; 373 pp.; $12.50.

Naturally, this is a specialist's book. Chock-full of case histories and references to court judgments, it is a guide amid the pitfalls and uncertainties of labor law.

Mr. Crysler is a member of the Law Society of Upper Canada, a specialist on labor problems. He wrote Labor Relations and Precedents in Canada, published in 1949.

* * *

ENGLISH OVERSEAS TRADE DURING THE CENTURIES OF EMERGENCE, by G. D. Ramsay; Macmillan Co. of Canada; 279 pp.; $5.75.

This is an attempt to explain the great unfolding of English overseas trade routes that preceded and accompanied the colonizing movements from Tudor times to the end of the 18th century. Dr. Ramsay, an Oxford Fellow, believes not that "trade followed the flag." It was the other way round; usually the flag followed trade.

"Without the concentrated direction provided at all times by the City of London (i.e., the merchants of London), English history might not have been so very different in kind from that of, say, Sweden, and the English name and language would certainly not have been carried so early into all quarters of the world."

Dr. Ramsay's style is eminently free-flowing and readable.

GERMAN RULE IN RUSSIA, 1941-45, by Alexander Dallin; Macmillan Co. of Canada, Toronto; 695 pp.; $11.75.

From mid-1941 to mid-1944, some of the Soviet Union's most productive provinces and about one third of her population remained under German control. This is an examination of why Germany's occupation of Russia failed so completely.

Initially, many Russians in the occupied areas showed "considerable willingness to adjust to and accept German rule" because "the latent fissures in Soviet state and society were many, after traumatic years of terror and near-starvation."

However, Germany failed to take advantage of the opportunity and by policies of terrorism and forced labor conscription, forced the doubly disappointed Soviet population back into Moscow's arms.

Dallin is a U.S. expert on Soviet affairs who spent six years writing this book. Based on captured official documents, unpublished memoirs and interviews, it is a painstaking and meticulous piece of scholarship.

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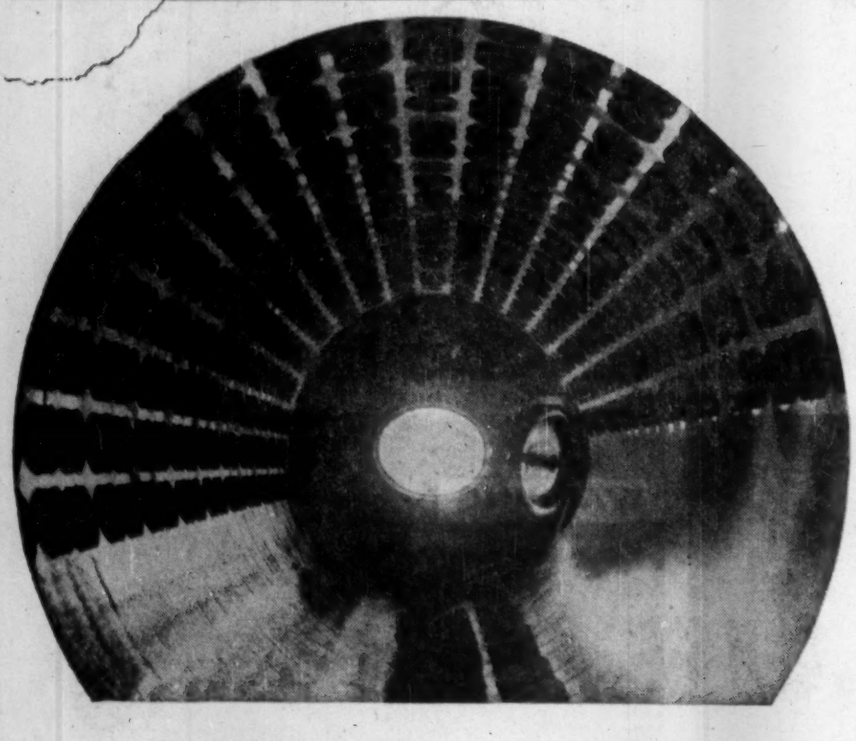

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Chickens vs. Apples

Nova Scotia's Big Fowl Play

By ROY K. COOKE

KENTVILLE, N.S.—The egg is giving the apple trouble in Nova Scotia's Annapolis valley.

And the broiler is getting in on the act, too.

Traditionally, the valley has been famed for its apple output.

But, in recent years, the hard-cash fact is this: There just isn't enough demand for Annapolis apples to justify all-out production.

Farmers have switched to poultry and eggs. The raising of broilers—already a booming business in Central Canada—is gathering steam in the historic valley.

One company produced almost four million eggs last year, another can turn out 95,000 broilers at a time.

Result: Some much-needed stability for a rich farming area which otherwise would have been hit hard by lagging demand for apples. Eggs and poultry haven't entirely compensated — but they have helped a lot.

Apple troubles started with the last war.

Before the war, the applegrower was king. But hostilities meant that shipping had to go to more essential foods.

British Market

These included eggs and many Nova Scotians turned to the task of providing them for the British market.

But after the war there was a tendency to go back to the old pattern.

The apple-marketing troubles of the 1950s — when there were far too few buyers, particularly in export markets, to absorb the supply—sent many farmers back to eggs, this time on a large scale.

One rancher estimates there are now about 800,000 layers in the valley. A 40-mile section centred around Kentville has been converted into one of the most heavily concentrated egg and chicken producing parts of Canada.

Figures clearly show the switch. In 1939 the apple crop was valued at $2.6 million while Nova Scotia poultry and eggs were worth $1.7 million. In 1956 apples hit less than $2 million while eggs and poultry were worth more than $10 million. It's estimated about two-thirds of the latter industry is in the Annapolis valley.

The Maritimes used to supply only a small part of their local demand for eggs. Now there are exports to Newfoundland, Bermuda, Quebec and Ontario.

100 Big Farmers

The commercial flock owned and fed by the farm wife is practically non-existent. A farmer with 1,000 birds is a small operator. There are at least 100 farmers with 5,000 laying hens.

Two firms predominate, **Cyrus & Manning Ells Ltd.**, and **Archibald Farms**, both of Port Williams. There is also the Annapolis-Cornwallis-Avon Co-operative which markets eggs and poultry for dozens of farmers.

Cyrus and Manning Ells were the leaders in developing the industry locally. Thirty years ago they started a hatchery that is now one of the biggest in Canada.

When the war started, Ells was able to supply the chicks which put other farmers in business. Last year 1.3 million chicks were hatched.

Heading the firm is Don Ells, a graduate of Ontario Agricultural College at Guelph. Last year with 50,000 layers the company did a volume of $598,669 selling eggs, chickens and poultry.

With about 60 on the payroll the wage bill was $150,000. Packaging materials alone cost $90,000.

In 1956 the company sold 917,000 dozen eggs. Ells' hens produced 328,000 dozen, the balance were bought from other producers.

Manning Ells—who died last winter—was Don's father, Cyrus his grandfather. The company is the development of a farming family that went big-time. Originally it specialized in fruit and cattle but the last of the pure-bred stock was sold last year.

Ells depends on Newfoundland to take about 40% of the company's production. But competition is stiffening there, as it has in Bermuda.

Swift Canadian Co. are Ells' agents on the west coast of Newfoundland and handle about two-thirds of the firm's island sales. East coast brokers are **A. J. Tobin** of St. John's.

Archibald Farms was formed in 1954, taking over from **George A. Chase Ltd.**, of Port Williams. Chase was the Annapolis valley's biggest apple man. In 1935 his firm shipped close to 500,000 bbls. of apples.

Sold Out

In 1949 he followed Ells into the egg business and in five years had 200,000 layers and the biggest chicken ranch in Canada. In 1954, because of ill health, he sold out, Donald F. Archibald of Truro, chartered accountant, is president of the successor company.

Symbolically, most hen houses are converted apple warehouses. To visit them takes a day's driving. Operations are spread over a number of subsidiary firms.

Archibald Farms last year entered the broiler business. A separate firm, **Canard Poultry Ltd.**, was organized with about 95,000 broilers. Although a number of different brands are packed, all products are sold through **Canada Packers Ltd.**

The valley egg industry is worried by low prices "caused," says Archibald, "by the government's decision to set a floor price for eggs. We would be better off if the floor price were removed.

"The government support keeps smaller producers in business who normally drop out when prices dip. This causes over-production. I think it will level out by next year. A 10% drop in production is all that is needed," says Ells.

At one period this summer there were 400,000 cases of eggs in storage in Canada. Normally for that season, the figure is below 100,000 cases.

Great Hopes

Ells has great hopes for a new crossbred type of leghorn.

A smaller hen, it requires less feed but has a high production rate. It is a franchised chick obtained from **Pioneer Hy-Bred Corn Co.** of Iowa. It will eventually be in production on most valley farms.

"We're expecting 240 eggs in 350 days," explains Ells. "A good bird 25 years ago laid 100 eggs in the same period. Nutrition and better breeding have made the difference.

"Annapolis Valley hens have had the highest average egg production record in Canada for the last five years."

This fall, Valley ranchers will be getting the first shipments of feeds in bulk instead of bags. The saving is estimated at $4 a ton. It will make a big difference to firms like Ells which uses 100 carloads a year.

There used to be the occasional shipment of eggs to the U.S. which puts on a duty of 3½c doz. But the present exchange rate cuts so deeply into the profit margin that shipments south of the border have been cut out entirely.

Ells confines all sales promotion to the Maritimes and Bermuda as does the Annapolis-Cornwallis-Avon Co-op, which also sells to the West Indies.

From May to October Archibald sells about 60% of production to Montreal through Canada Packers. The rest of the year the company sells in much the same markets as the other producers. Two-thirds of the Montreal shipments go by rail, the balance by truck.

Woods Workers Big Eaters As Bull Cooks Disappear

Take 9,000 tons of meat, 3.9 million lb. of fats, 24 million eggs, 4,750 tons of flour, 4 million cases of canned goods, add a pinch (3,250 tons) of sugar and stir in 3 million cases of canned milk and 700 tons of powdered milk and you get a rough approximation of the quantity of food Canada's hungry horde of woodland workers can put away in just one season.

For the country's pulp and paper mills and woodland operators, bush camp cookery is now a serious, scientific, big-league business — a far cry from just a few years ago when beans, pork and heavy bread were camp staples and the chore boy frequently doubled in brass for the cook.

Many operators today acknowledge that if the quality of camp fare declines, a substantial part of the labor force may evaporate—drift on to another camp where the food is better.

"The taste of bush workers has become more demanding during the past few years and, in fact, they are now actually getting quite fussy," says Lewis Brown, chief cook instructor for **New Brunswick International Paper Co.** (a subsidiary of **Canadian International Paper Co.**) and probably the dean of Canadian bush camp cooks.

Over 1 lb. of Meat

Lew's task with N. B. International is to supervise the training of new cooks as well as the actual operation of some 25 camp kitchens.

Camp fare, he reports, today comprises a scientifically compounded menu calling for an average of 90.37 oz. of food per man per day (including 17.3 oz. of meat) to yield a 6,000 calorie diet required by the heavy work involved in woodland operations.

"Our boys are getting steak at least once a week, roast beef three times a week and the breakfast menu includes such items as juices, cereals, ham or bacon and eggs, hot biscuits and pancakes."

Only a few years ago the average bush worker might well have started off his day with beans and flapjacks or hot biscuits and come back to a meal at the day's end comprised largely of salt pork, boiled cod or corned beef, potatoes and a vegetable.

Chief problem encountered on his monthly rounds of the 25 bush kitchens, Lew reports, is to get camp cooks both cost and usage conscious. In the high calorie, quality meals such as are now being offered to woodland workers, wastage of even seemingly small quantities of food can become an expensive proposition.

Experience has shown that the average cost of the 6,000 calorie diet should be in the vicinity of $1.20 and $1.25 per man per day for food alone.

The trick in keeping cost to this unbelievably low figure lies both in mass purchasing and ensuring that nothing is wasted.

The revolution in the bush camp kitchen has brought with it a number of changes other than in the type and quality of the food which finds its way to the dinner plate.

Camps themselves have acquired vastly improved plumbing, lighting and messing facilities and extensive use is now being made of attractive plastic dishes in place of agate ware so easily chipped and cracked.

Bread Mix

Cake and cookie "mixes" provide easy means whereby camp cooks can brighten up their dinner tables and a further innovation—in the form of a bread mix—is now in the process of development.

The role of camp cook itself is taking on a far greater measure of significance and cooks, if they are any good, are gaining increasing respect from fellow woodland workers. In the old days — when it took a cook a week to get to the camp site and another week to get out when he got disgusted and quit—the "bull cook" or camp chore boy more often than not wound up as chef for the camp for weeks on end. Needless to say neither camp cooks nor camp cookery were held in very high regard by woodland workers in those days.

Today, prospective cooks generally apprentice as "cookees" or helpers in camp kitchens for anywhere from four to six years before being promoted to the ranks of full-fledged cooks.

Instruction includes not only the art of cooking but also a thorough training in keeping the camp dining room neat and presentable.

Despite all of the modernization there is one thing that hasn't changed in the bush camp kitchen—the stove. It's the old fashioned cast iron wood burner — such as grandmother used to use—but ideally suited to the task of quickly turning out food in sufficient quantity to feed upwards of 100 hungry men at one sitting. In the bush, needless to say, wood is the most readily available kitchen fuel.

One measure of the importance pulp and paper companies and woodland operators are now attaching to improved and proper messing can be seen from the fact that a bush camp cooking school is held annually at Fredericton, N.B., attended by camp cooks from throughout Eastern Canada and the Northeastern U.S.

The school is presided over by Lew Brown. For a solid week he brings fellow cooks up to date on the latest methods and techniques helpful in feeding the vast army of woodland workers — which in Canada alone numbers some 100,000 men.

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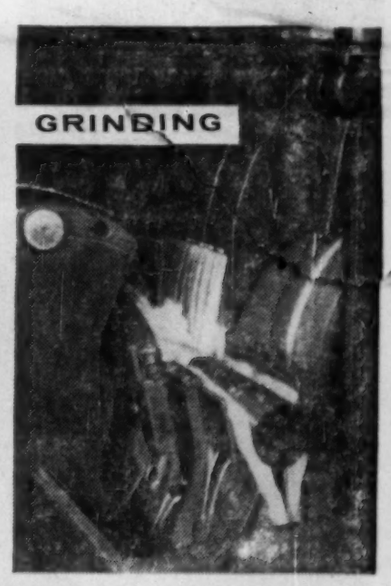

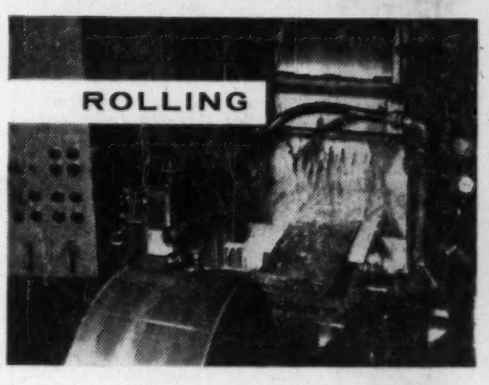

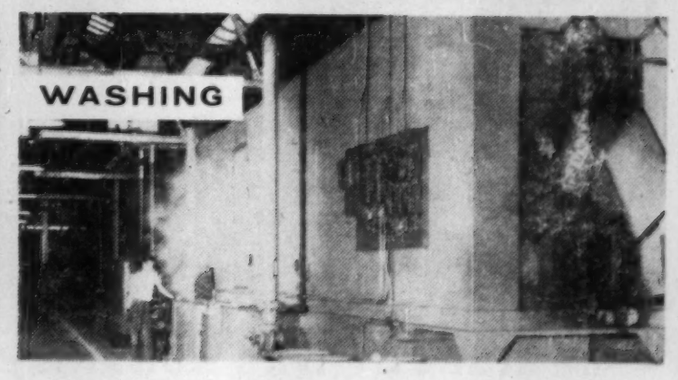

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